LTN

Annual Monitoring Report

2013

LUTON BOROUGH COUNCIL

LONDON LUTON AIRPORT

Executive Summary

Activity

London Luton Airport (LLA) served just over 9.7 million passengers in 2013, an increase of 1% year on year. The services included 8 new routes (nett total of 3 as 5 routes ended during 2013) resulting in a total of 100 destinations in 2013.

There were a total of 97,615 aircraft movements during 2013, a decrease of just over 1% compared to 2012. These aircraft movements consisted of 74,071 passenger flights, including commercial flights by executive aircraft. The most common aircraft types used for passenger aircraft movements during 2013 were Airbus A320/321 aircraft (29%), Airbus A319 aircraft (27%) and the Boeing 737 (13%).

General Aviation and non-commercial executive aircraft movements decreased by 1% year on year and the cargo handled at the Airport decreased from 29,663 tonnes in 2012 to 29,092 tonnes during 2013. Most of this cargo was carried by the Airbus A300 freighter, the movements of which were similar to last year, increasing slightly from 1,075 in 2012 to 1,163 in 2013, with the majority (97%) involving newer series A306 aircraft types, as the cargo operators continue to upgrade their fleets.

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 64% of the time. The day/night ratio of total aircraft movements during 2013 was 92% day / 8% night, in line with 2012. No permanent changes to any flight routes occurred during 2013, with the busiest departure routes being Clacton/Dover/Detling, towards the Brookmans Park beacon and Compton, towards the Tring area.

The Airport continued to monitor the use of Continuous Descent Approaches (CDAs) and has provided the London Luton Airport Consultative Committee (LLACC), via the Noise & Track Sub-committee, with detailed statistics on CDA achievement on a regular basis. The overall achievement rate during 2013 was 86%, in line with 86% in 2012.

Developments

There were no notable physical developments undertaken or commenced by London Luton Airport Operations Ltd. (LLAOL) within the Airport boundary during 2013.

On 3rd December 2012, LLAOL submitted a planning application to Luton Borough Council (LBC) for:

> *"Full planning application for dualling of Airport Way/Airport Approach Road and associated junction improvements, extensions and alterations to the terminal buildings, erection of new departures / arrivals pier and walkway, erection of a pedestrian link building from the short-stay car park to the terminal, extensions and alterations to the mid-term and long-term car parks, construction of a new parallel taxiway, extensions to the existing taxiway parallel to the runway, extensions to existing aircraft parking aprons, improvements to ancillary infrastructure including access and drainage, and demolition of existing structures and enabling works. Outline planning application for the construction of a multi-storey car park and pedestrian link building (all matters reserved)"*

The application is a hybrid application, with full details submitted for all of the development except in relation to the multi-storey car park and pedestrian link building, where all matters are reserved for subsequent determination. The application was accompanied by an Environmental Statement (ES), with a scoping request having been made in August 2012 and LBC having provided its scoping opinion in November 2012 (ref 12/01400/FUL).

The application was reported to a meeting for LBC's Development Control Committee on 20th December 2013. Members resolved to approve the application, but the application had to first be referred to the National Planning Casework Unit to allow the Secretary of State the opportunity to further examine the application, before formal determination.

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

- Construction of a new vehicular access ramp, linking apron to rear fixed base operation circulation route, with associated exterior stairs and additional security fence and gate. Harrods Aviation (Hangar 129)
- New advertisements for Harrods Aviation (Hangar 129) and Thomson Airways (Hangar 61)

Planning

The Luton and Southern Central Bedfordshire Joint Committee was disbanded in March 2012 following the Secretary of State withdrawing the pre-submission Core Strategy in September 2011. Luton Borough Council Members of the Joint Committee did not support the core strategy document. However, Central Bedfordshire Council has prepared a new Development Strategy largely founded on the approach of the previous joint core strategy as far as it relates to Central Bedfordshire, and this plan has undergone a pre-submission consultation although its progress is halted pending new work on objective housing evidence via a joint Strategic Housing Market Assessment with Luton and other partners within the housing market area. Consequently work commenced on a Local Plan for Luton under the requirements set out within the National Planning Policy Framework (NPPF). However, in the interim, the Borough Council's adopted Luton Local Plan (March 2006) remains part of the statutory development plan until replaced when the new local plan is prepared.

Furthermore, the LLA Development Brief (February 2000) sets out detailed proposals for further development at LLA and is adopted by Luton Borough Council as Supplementary Planning Guidance (in September 2001).

The NPPF was published in March 2012 and requires plans to be soundly prepared i.e. positively prepared (evidenced based on objective needs); justified (against reasonable alternatives); effective (deliverable which requires local authorities to adopt an approach under the duty to cooperate on cross boundary matters); and consistent (with national policy).

The publication of the Localism Act in November 2011 signalled an overhaul of the planning system with more emphasis on a national policy framework and local neighbourhood plans.

A work programme for the new Local Plan (Local Development Scheme or LDS) to replace the existing Luton Local Plan was approved by the Council's Executive on 23 January 2012, commencing with evidence gathering. Throughout the process, negotiations are required under the 'duty to cooperate' to achieve a satisfactory understanding with neighbouring authorities. This is critical to the soundness of respective local plans.

A six week consultation took place from 25th June to 3rd August 2012 inviting representations on the content of the new local plan. A revised timetable (LDS) for the preparation of the Local Plan was approved by the Council's Executive on 25th March 2013. Since that time further evidence gathering and evaluation has taken place and the council has decided to introduce an informal draft Local Plan consultation stage before moving to pre submission consultation. The draft Local Plan public consultation is expected to commence in February/March 2014

Noise

Aircraft noise in 2013 has been monitored continuously at the three fixed noise monitors and the Airport's noise contours regularly updated. The individual noise of each departure has been compared to noise violation limits of 94dB(A) during the daytime and 82dB(A) at night. There were no daytime violations during 2013 and just 4 violations at night (three A30B cargo jets and one B734 passenger jet aircraft), compared to 3 night violations during 2012. Continuous monitoring indicates that the vast majority of aircraft operated well below the current violation limits, with 99% of daytime departures and 97% of night departures registering maximum noise levels less than 79dB(A) and 87% of daytime departures and 82% of night departures registering maximum noise levels less than 76dB(A).

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

	Daytime (57dB $L_{Aeq,16h}$) in km^2	Night-time (48 dB $L_{Aeq,8h}$) in km^2
NOT TO BE EXCEEDED	31.5	85.0
NOISE REDUCTION ACTION PLAN TO BE IMPLEMENTED	19.6	60.6
ACTUAL 2013	13.8	30.7

The contours for 2013 have been produced using the most recent version of aircraft noise modelling software, INM 7.0d.

The areas within the 57dB(A) daytime summer contour (13.8 km^2) and the 48 dB(A) night-time summer contour (30.7 km^2) identify that the Airport is operating well within its planning limits. This equates to a 6% reduction in the daytime 57dB(A) summer contour and a 15% reduction in the night-time 48dB(A) summer contour since 2012, which is largely attributed to a decrease in movements. The 2013 results are significantly below the 1984 values and also below the 1999 predicted values which, if exceeded, would require a noise reduction plan to be implemented.

The population counts for this year were calculated using the CACI Ltd, 2012 postcode database. Each postcode in the database is described by a single geographical point and if this point is within a contour then all of the dwellings and population in the postcode are counted. Counts for 2012 have been presented to enable direct comparison year on year.

When comparing the 2013 summer contour results with the 2012 summer contour results, a reduction to the dwelling counts and population figures are observed. The daytime 57dB(A) summer contour shows a decrease of around 3% for dwellings and population and the night-time 48dB(A) summer contour shows a decrease of around 5% for dwellings and population. The reduction is largely due to a decrease in aircraft movements.

In response to the Environmental Noise Directive (2002/49/EC) and corresponding regulations a Draft Noise Action Plan was prepared by the Airport during 2009, in partnership with the LLACC, the Air Traffic Control provider and airline partners. A 16 week consultation period on this document was launched on 28th September 2009 and following consideration of consultation responses a final Draft Noise Action Plan was submitted to the Department for Environment, Food and Rural Affairs (DEFRA), for approval, at the end of January 2010. London Luton Airport published the final Noise Action Plan in January 2012, following formal adoption by the Secretary of State for Environment, Food and Rural Affairs. This document is available to view on the airport website, at the following link: http://www.london-lutoninthecommunity.co.uk/noise-action-plan

A progress update on the specific actions within the Noise Action Plan is outlined under Section 7 of this report.

Complaints

During 2013 a total of 1,022 complaints relating to (LLA) aircraft operations were received, compared to 938 in 2012, an increase of 9% year on year. This was due in part to heightened awareness concerning the RNAV1 trials carried out between March and June 2013, when local residents were encouraged to provide feedback (both positive and negative) regarding any perceived changes in noise or departure track-keeping on the 26 Clacton/Dover/Detling heading.

The number of complainants reporting concerns throughout the year increased from 355 in 2012 to 379 during 2013. These individuals were located in a wide area around the Airport, with the highest number of complainants originating from Flamstead, Harpenden, Hemel Hempstead, Redbourn and St Albans, these being amongst those communities affected most by the RNAV1 trials.

The number of specific aircraft events reported by complainants decreased from 3,079 in 2012 to 2,164 in 2013. However, 558 of these events (26% of total events) were reported by just one individual in Harpenden.

During the year 163 individuals reported a total of 374 complaints concerning night noise disturbance from LLA operations. This amounts to 37% of all complaints received in 2013, compared to 286 night noise complaints during 2012 (from 144 individuals). It should be noted that 26% of the reported night disturbance reports during 2013 originated from just three individuals, one in Harpenden, one in Hemel Hempstead and one in Kensworth. A further 20 complaints reported disturbance relating to overflights to or from other airports during the night period.

Employment

The methodology for this year's analysis is the same as for the previous year. Administrative data sources were used to conduct the survey, instead of sending out questionnaires as was the case up to the 2009 survey. The Inter Departmental Business Register was used as the main data source. This Office for National Statistics (ONS) dataset is a comprehensive list of UK businesses that is used by government for statistical purposes. It provides a sampling frame for surveys of businesses carried out by the ONS and by other government departments. It is also a key data source for analyses of business activity.

It has been assessed that during 2013 around 8,400 people work at or around the Airport site. It is estimated that just over 81% of the jobs are full time positions.

Surface Access

The annual summer road count for 2013 shows an increase in 12hr/5day traffic flows on 3 of the 8 monitored roads. The highest increase in traffic is +1,188 (10.3%) on Airport Way (new), while the most significant decrease in traffic is -1,137 (-21.5%) on Frank Lester Way. The overall marginal traffic flow compared with last year in these observation points is -1259 (-2.4%).

The number of staff car parking spaces remained unchanged during 2013, whilst passenger car parking capacity increased slightly with an extension to the long stay car park. The total car parking spaces on site now stand at 12,466, with around 7,900 spaces in off-site parks.

Conclusion

In 2013 London Luton Airport achieved a 1% increase in passengers, with a 1% reduction in total aircraft movements. With a total of 97,615 annual movements the Airport served just over 9.7 million passengers and carried just over 29,000 tonnes of cargo (compared to just under 30,000 tonnes during 2012). During the year there were a total of 100 destinations served, with 8 new routes (nett total of 3 as 5 routes ended during 2013). The Airport has continued to provide major employment for the area and around 8,400 people are estimated to work at or around the Airport site.

During 2013 there was an increase in the number of complaints reporting disturbance from aircraft operations but a reduction in the number of aircraft events eliciting a complaint. There was also a 7% increase in the number of individuals reporting concerns to the Airport.

The contours for 2013 were produced using the most recent aircraft noise modelling software, INM 7.0d. When comparing the 2013 summer contours with the 2012 summer contours, significant decreases were identified in the contour areas year on year (-6% daytime and -15% night-time). This decrease is largely attributable to a decrease in movement numbers. The 2013 results are also significantly below the 1984 values and also below the 1999 predicted values which, if exceeded, would require a noise reduction plan to be implemented.

The results also show a small decrease in the number of dwellings and the population within the summer contours when comparing 2013 with 2012. For the 57 dB(A) daytime summer contour the decrease is around 3%, and for the 48 dB(A) night time summer contour this is around 5%. Overall, the population affected during 2013 stood at 7,128 people during the daytime and 14,974 people at night. The Airport is however still operating well within the limits set by the planning permission for the terminal resolved in February 1998.

1. Background

As a result of the Airport Act 1986, Luton Borough Council (LBC) formed a Limited Company, London Luton Airport Ltd (LLA Ltd.), as freeholders and operators of the Airport in April 1987. In August of 1998, LLA Ltd then granted a 30 year agreement to a private consortium, known as London Luton Airport Operations Ltd (LLAOL), as the licensed managers and operators. An extension to this agreement between LLA Ltd and LLAOL was granted in August 2012, taking the concession period up to 2031.

This report is the 35th Annual Monitoring Report (AMR) and unless otherwise stated, looks at the calendar year 2013. It has been produced jointly by LBC and LLAOL.

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, housing and the effect on the highway system. They 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".

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.

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.

The Leq contours are produced by Bickerdike Allen Partners for LLAOL using the FAA INM (Integrated Noise Model) model and LLAOL provides the contour outputs to LBC.

This is the 27th 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.

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.

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 the LLACC. Sections 2-7 have been produced exclusively by LLAOL. Sections 8-10 have been produced by LBC with data input on employment counts and car parking supplied by LLAOL.

Following validation the statistics contained within this report may differ to those presented in the Quarterly Airfield Environment Report.

Sections 2-8

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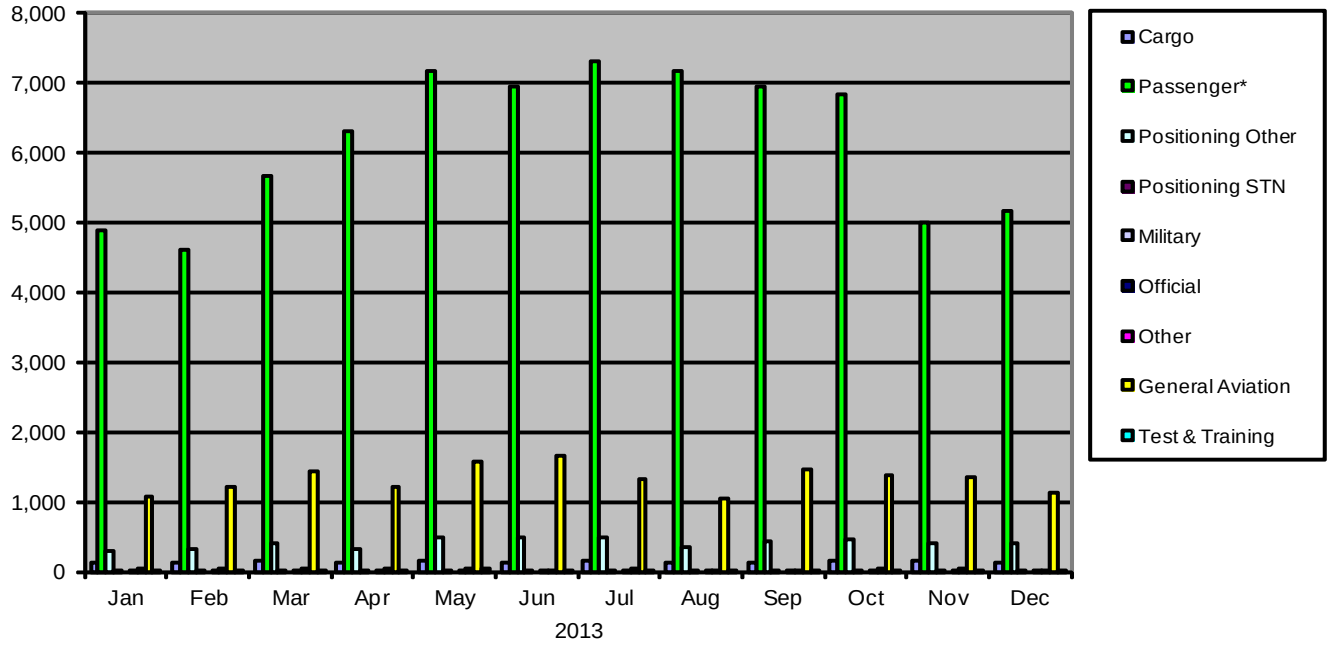
2. Aircraft Movements

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 97,615 aircraft movements during 2013 (compared with 98,763 in 2012), a slight decrease of about 1%. This resulted in an average 267 movements per 24 hours (in comparison with 271 in 2012).

	Commercial					Non - Commercial						
	Cargo	Passenger*	Positioning		Total	Military	Official	Other	General Aviation	Test & Training	Total	Total
			Other	STN								
Jan	140	4,887	303	6	5,336	0	2	43	1,086	7	1,138	6,474
Feb	142	4,625	340	6	5,113	0	7	42	1,214	23	1,286	6,399
Mar	163	5,664	414	11	6,252	0	6	53	1,431	19	1,509	7,761
Apr	135	6,310	331	16	6,792	0	2	41	1,210	26	1,279	8,071
May	152	7,169	508	24	7,853	0	3	41	1,569	36	1,649	9,502
Jun	135	6,947	499	11	7,592	0	7	23	1,657	18	1,705	9,297
Jul	152	7,317	487	15	7,969	0	3	37	1,335	27	1,404	9,373
Aug	135	7,177	363	16	7,691	0	6	26	1,055	13	1,100	8,791
Sep	134	6,948	441	17	7,540	0	12	30	1,479	9	1,530	9,070
Oct	148	6,835	472	16	7,471	0	13	40	1,385	29	1,467	8,938
Nov	154	5,014	404	23	5,595	0	4	44	1,353	18	1,419	7,014
Dec	128	5,178	398	17	5,721	0	2	31	1,145	26	1,204	6,925
2013 Total	**1,718**	**74,071**	**4,960**	**178**	**80,925**	**0**	**67**	**451**	**15,919**	**251**	**16,690**	**97,615**
2012 Total	***1,816***	***74,976***	***4,891***	***236***	***81,919***	***8***	***93***	***421***	***16,111***	***211***	***16,844***	***98,763***

* includes commercial flights by executive aircraft



2.2. 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.
General Aviation	Private Aircraft, Helicopters and Business Jets not operating for hire or reward
Passenger	Commercial passenger flights, including executive aircraft
Other Positioning	Positioning flights to/from other Airports
STN Positioning	Positioning flights to/from London-Stansted Airport
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.
Test & Training	Training flights involving aircraft and also flights following or during aircraft maintenance

2.3. 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 and executive aircraft although in recent years many general and executive aircraft can weigh in excess of 16 tonnes.

Aircraft Classifications (16 tonnes)

		2012	2013
Aircraft Over 16 Tonnes	Passenger	70,841	70,176
	Cargo	1,815	1,717
	Other	15,399	15,553
Aircraft Under 16 Tonnes	Passenger	4,135	3,895
	Cargo	1	1
	Other	6,572	6,273
TOTAL		**98,763**	**97,615**

2.4. Air Traffic Movements by Propulsion Type

Key – Jet, Propeller, Helicopter, Turbo-prop

AIRBUS A300-600 FREIGHTER	1,131	BOEING BBJ2 (737-800)	50
AIRBUS A300-600 PASSENGER	2	BOEING BBJ3 (737-900)	8
AIRBUS A300-B4/C4 PASSENGER	2	CANADAIR CHALLENGER 300	916
AIRBUS A300-B4/C4/F4 FREIGHTER	32	CANADAIR CHALLENGER 601	131
AIRBUS A310-300	14	CANADAIR CHALLENGER 604	2,014
AIRBUS A318	79	CANADAIR CHALLENGER 800 SRS (CRJ1/2)	339
AIRBUS A319	26,186	CANADAIR GLOBAL 5000	516
AIRBUS A319 CJ (EXEC)	146	CANADAIR GLOBAL EXPRESS	2,228
AIRBUS A320	24,589	CANADAIR REGIONAL JET 100	4
AIRBUS A320 (SHARKLETS)	1,244	CANADAIR REGIONAL JET 200 /440	10
AIRBUS A321	2,087	CANADAIR REGIONAL JET 900	2
AIRBUS A330-200 FREIGHTER	20	CESSNA 500/501 CITATION I	2
AVRO RJ100	4	CESSNA 510 CITATION MUSTANG	746
AVRO RJ85	30	CESSNA 525 CITATIONJET	219
BAE 146-100 PASSENGER	7	CESSNA 525A CITATIONJET 2	1,076
BAE 146-200 PASSENGER	26	CESSNA 525B CITATIONJET 3	214
BAE 146-300 PASSENGER	2	CESSNA 550/551/552 CITATION 2/SP/BRAVO	721
BEECHCRAFT/RAYTHEON/HAWKER 400/450/XP	105	CESSNA 560 CITATION 5/ULTRA	36
BOEING 727-100 PASSENGER	2	CESSNA 560E CITATION ENCORE	10
BOEING 727-200 WINGLETS	6	CESSNA 560XL CITATION EXCEL/XLS	2,226
BOEING 737-200 PASSENGER	56	CESSNA 650 CITATION III/VI/VII	28
BOEING 737-300 FREIGHTER	62	CESSNA 680 CITATION SOVEREIGN	350
BOEING 737-300 PASSENGER	92	CESSNA 750 CITATION X	273
BOEING 737-300 WINGLETS	4	CESSNA CITATION FAMILY	8
BOEING 737-400 FREIGHTER	78	DASSAULT FALCON (3 ENGINE) FAMILY	2
BOEING 737-400 PASSENGER	880	DASSAULT FALCON 10/100	10
BOEING 737-500	12	DASSAULT FALCON 20/200	16
BOEING 737-700	18	DASSAULT FALCON 200/2000/50/900	4
BOEING 737-700 WINGLETS	4	DASSAULT FALCON 2000	945
BOEING 737-800	8	DASSAULT FALCON 2000 DX/EX	28
BOEING 737-800 WINGLETS	11,402	DASSAULT FALCON 2000 LX	369
BOEING 737-900	4	DASSAULT FALCON 50	38
BOEING 737-900 WINGLETS	4	DASSAULT FALCON 50EX	120
BOEING 757-200 FREIGHTER	58	DASSAULT FALCON 7X	840
BOEING 757-200 PASSENGER	185	DASSAULT FALCON 900	691
BOEING 757-200 WINGLETS	609	DASSAULT FALCON 900EX	12
BOEING 757-300	12	ECLIPSE 500	2
BOEING 767-200 PASSENGER	2	EMBRAER 170	4
BOEING 767-200ER	122	EMBRAER 190	32
BOEING 767-300 PASSENGER	34	EMBRAER 195	20
BOEING 767-300 WINGLETS	78	EMBRAER LEGACY 600	1,153
BOEING 777-200ER	36	EMBRAER PHENOM 100	90
BOEING 787-800	4	EMBRAER PHENOM 300	240
BOEING BBJ (737-700)	186	EMBRAER RJ135	116

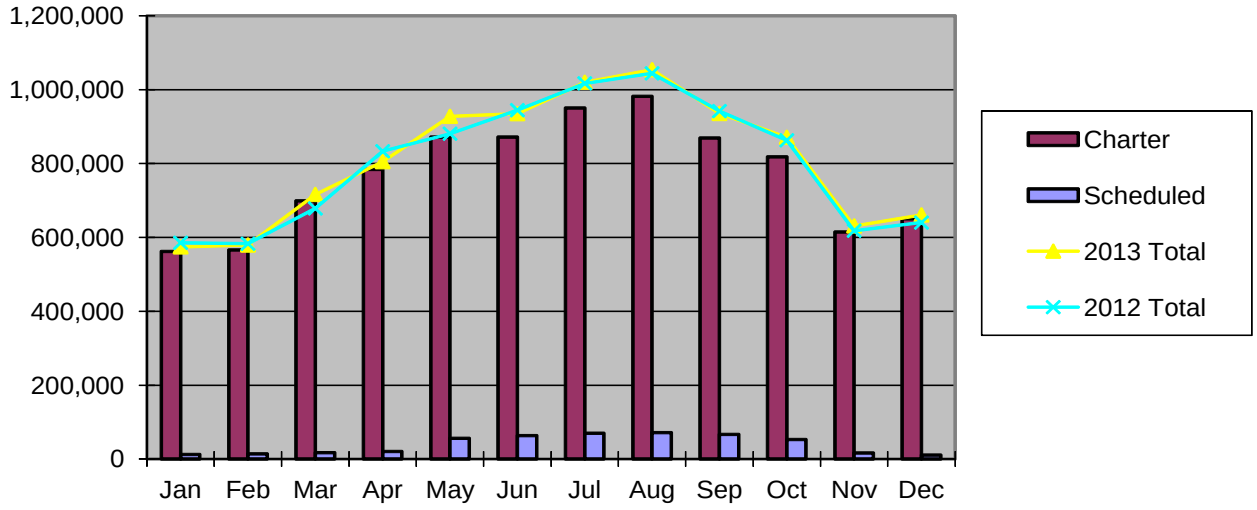
EMBRAER RJ145	101	AEROSPATIALE AS350/355 FAMILY	106
FAIRCHILD DORNIER 328 JET	10	AEROSPATIALE AS355/555	4
FOKKER 100	8	AEROSPATIALE AS365/565	4
FOKKER 70	14	AGUSTA A109	142
GATES LEARJET 31	16	BELL HELICOPTER FAMILY	10
GATES LEARJET 35/36	102	EUROCOPTER EC130	38
GATES LEARJET 40	24	EUROCOPTER EC135/635	26
GATES LEARJET 45	346	EUROCOPTER EC155	92
GATES LEARJET 55	22	MD HELICOPTERS MD900 EXPLORER	2
GATES LEARJET 60	375	ROBINSON R44	4
GULFSTREAM 100 / IAI 1125 ASTRA	2	SIKORSKY S-76	66
GULFSTREAM 100 SERIES	78	SIKORSKY S-92	4
GULFSTREAM 150	12	**Total**	**498**
GULFSTREAM 2	8	AEROSPATIALE/ALENIA ATR42-200/300	8
GULFSTREAM 200 / IAI 1126 GALAXY	395	AEROSPATIALE/ALENIA ATR42-500	2
GULFSTREAM 280	26	AEROSPATIALE/ALENIA ATR72	6
GULFSTREAM 3	52	ANTONOV AN-26	2
GULFSTREAM 4	170	BAE ATP FREIGHTER	616
GULFSTREAM 4, 300 AND 400 SERIES	1,979	BAE JETSTREAM 31	16
GULFSTREAM 400	50	BAE JETSTREAM 41	4
GULFSTREAM 450	93	BEECHCRAFT 200 KING AIR	244
GULFSTREAM 5	26	BEECHCRAFT 300/350 KING AIR	76
GULFSTREAM 5 AND 500 SERIES	2,352	BEECHCRAFT C90A/B/GT KING AIR	8
GULFSTREAM 550	320	BEECHCRAFT E90 KING AIR	10
GULFSTREAM 650	138	BEECHCRAFT TWIN TURBOPROP	20
HAWKER 4000	4	CASA 212 AVIOCAR	2
HAWKER/RAYTHEON 4000 HORIZON	150	CASA/IPTN CN-235	4
HS125 FAMILY	2	CESSNA 441 CONQUEST 2	26
HS125-100/200/300	2	DE HAVILLAND DHC-8 DASH 8-400	532
HS125-1000	30	FAIRCHILD DORNIER 328	2
HS125-700/750	273	FOKKER 50/60	26
HS125-800/850XP	856	LOCKHEED L-100/182/382 HERCULES	4
HS125-900/900XP	293	MITSUBISHI MU-2	2
MCD DOUGLAS MD-82	16	PIAGGIO P180	58
MCD DOUGLAS MD-83	24	PILATUS PC-12	90
MCD DOUGLAS MD-87	12	PIPER LIGHT A/C (TWIN TURBO)	2
RAYTHEON 390 PREMIER 1	130	PIPER PA31T TURBO NAVAJO/CHEYENNE I/II	4
ROCKWELL SABRE/SABRELINER	2	PIPER PA42 CHEYENNE 3/4	20
Total	**95,250**	PIPER PA46 (TURBO)	4
CESSNA 205/206/207	6	SAAB 340A	4
DIAMOND STAR DA-40/42	14	SOCATA TBM 700/850	6
PIPER LIGHT A/C (SINGLE PISTON)	2	SW SA-227CC/DC METRO 23	18
PIPER LIGHT AIRCRAFT	2	**Total**	**1,816**
PIPER PA31 NAVAJO	27		
Total	**51**	**Grand Total**	**97,615**

2.5. Passenger Statistics

Charter flights are flights in which the aircraft has been chartered (or leased) by a company, typically a tour operator or an executive customer. 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 9,710,771 passengers were handled at LLA during 2013: 9,239,556 on scheduled flights (95%) and 471,215 on charter flights (5%). This represents a small overall increase in passengers of 1% compared with 2012.

	2012			2013		
	Charter	Scheduled	**Totals**	Charter	Scheduled	**Totals**
Jan	11,564	574,080	**585,644**	562,279	12,160	**574,439**
Feb	14,323	568,656	**582,979**	565,767	13,693	**579,460**
Mar	14,424	664,201	**678,625**	698,855	17,573	**716,428**
Apr	24,444	808,910	**833,354**	784,229	20,847	**805,076**
May	57,051	823,889	**880,940**	871,924	55,943	**927,867**
Jun	66,364	878,258	**944,622**	871,781	63,262	**935,043**
Jul	69,243	947,910	**1,017,153**	950,358	69,691	**1,020,049**
Aug	74,208	970,026	**1,044,234**	982,310	71,502	**1,053,812**
Sep	69,970	872,030	**942,000**	869,009	66,411	**935,420**
Oct	55,289	807,685	**862,974**	818,075	53,013	**871,088**
Nov	15,375	602,938	**618,313**	614,941	16,195	**631,136**
Dec	12,748	627,577	**640,325**	650,028	10,925	**660,953**
Totals	**485,003**	**9,146,160**	**9,631,163**	**9,239,556**	**471,215**	**9,710,771**



2.6. Average passenger load on public transport flights

Average Passengers on Scheduled and Charter Flights			
Year	Charter*	Scheduled	**Total**
2009	169	125	**127**
2010	181	132	**134**
2011	181	132	**134**
2012	182	140	**142**
2013	177	143	**144**

*including chartered executive aircraft

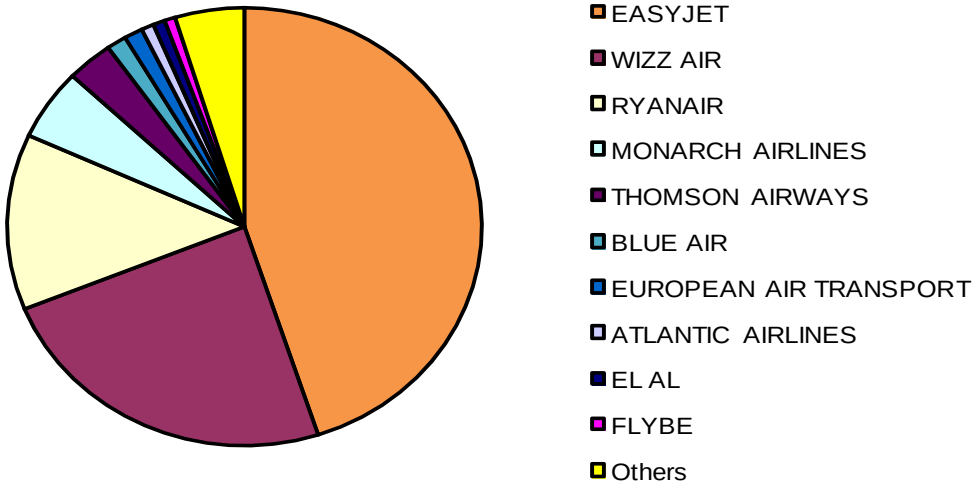
2.7 Passenger Breakdown by Region

	2012				2013			
	Domestic	EU	Non-EU	**Total**	Domestic	EU	Non-EU	**Total**
Jan	69,698	352,997	162,949	**585,644**	62,866	353,159	158,414	**574,439**
Feb	78,281	354,378	150,320	**582,979**	72,742	349,776	156,942	**579,460**
Mar	86,070	417,900	174,655	**678,625**	80,369	437,062	198,997	**716,428**
Apr	89,897	544,104	199,353	**833,354**	84,074	525,015	195,987	**805,076**
May	91,101	599,834	190,005	**880,940**	89,200	623,506	215,161	**927,867**
Jun	91,042	644,202	209,378	**944,622**	85,711	630,519	218,813	**935,043**
Jul	90,757	698,260	228,136	**1,017,153**	94,154	686,227	239,668	**1,020,049**
Aug	92,901	717,495	233,838	**1,044,234**	95,157	710,051	248,604	**1,053,812**
Sep	87,527	643,187	211,286	**942,000**	87,288	627,018	221,114	**935,420**
Oct	91,472	579,458	192,044	**862,974**	87,019	583,639	200,430	**871,088**
Nov	80,801	394,295	143,217	**618,313**	76,128	392,929	162,079	**631,136**
Dec	78,001	404,702	157,622	**640,325**	74,705	406,109	180,139	**660,953**
Totals	**1,027,548**	**6,350,812**	**2,252,803**	**9,631,163**	**989,413**	**6,325,010**	**2,396,348**	**9,710,771**

2.8. Movements by ten largest operators

Operator	**Movements**	**%**
EASYJET	32,348	45%
WIZZ AIR	17,185	24%
RYANAIR	9,331	13%
MONARCH AIRLINES	3,779	5%
THOMSON AIRWAYS	2,275	3%
BLUE AIR	966	1%
EUROPEAN AIR TRANSPORT	910	1%
ATLANTIC AIRLINES	615	1%
EL AL	588	1%
FLYBE	526	1%
Others	3,397	5%
Total	**71,920**	**100%**

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



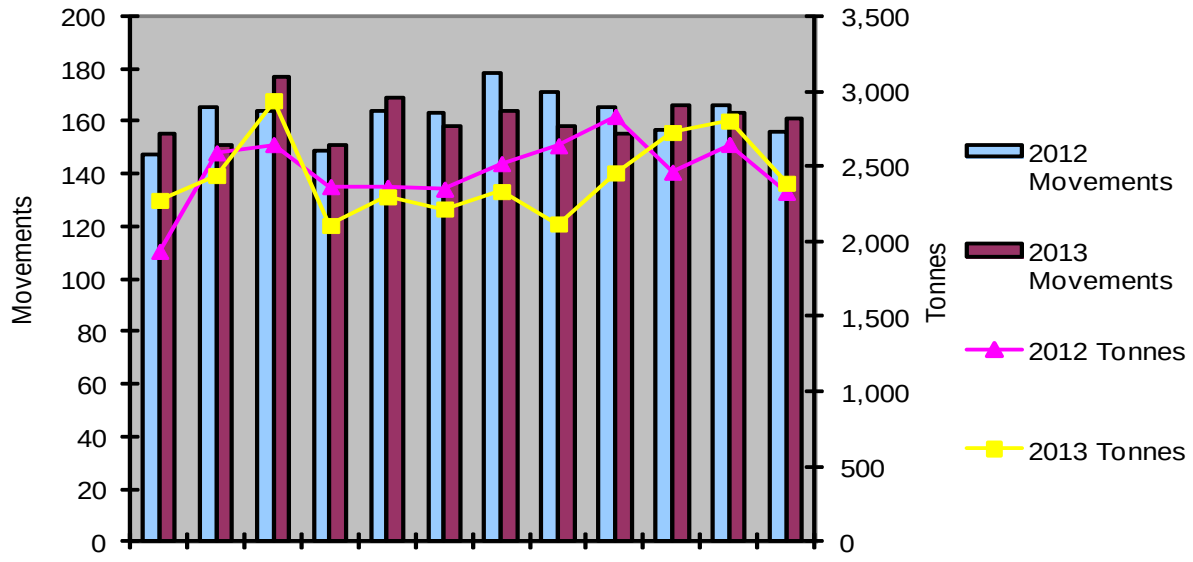
2.9. Movements and average seats by aircraft type

		Movements	Average Seats
EASYJET	AIRBUS A319	25,751	156
	AIRBUS A320	6,449	180
	AIRBUS A320 (SHARKLETS)	148	180
	Total	**32,348**	**162**
WIZZ AIR	AIRBUS A320	16,154	181
	AIRBUS A320 (SHARKLETS)	1,031	181
	Total	**17,185**	**181**
RYANAIR	BOEING 737-800 WINGLETS	9,331	189
	Total	**9,331**	**189**
MONARCH AIRLINES	AIRBUS A320	1,723	174
	AIRBUS A320 (SHARKLETS)	55	174
	AIRBUS A321	1,982	214
	BOEING 737-400 PASSENGER	8	168
	BOEING 757-200 PASSENGER	11	230
	Total	**3,779**	**197**
THOMSON AIRWAYS	BOEING 737-800 WINGLETS	1,676	189
	BOEING 757-200 PASSENGER	98	235
	BOEING 757-200 WINGLETS	499	233
	BOEING 767-300ER	2	265
	Total	**2,275**	**202**
BLUE AIR	AIRBUS A320	12	160
	BOEING 737-300 PASSENGER	64	141
	BOEING 737-400 PASSENGER	844	162
	BOEING 737-500	8	126
	MCD DOUGLAS MD-82	16	160
	MCD DOUGLAS MD-83	22	165
	Total	**966**	**161**
EUROPEAN AIR TRANSPORT	AIRBUS A300-600 FREIGHTER	872	N/A
	AIRBUS A300-B4/C4/F4 FREIGHTER	2	N/A
	BOEING 737-300 FREIGHTER	7	N/A
	BOEING 757-200 FREIGHTER	29	N/A
	Total	**910**	N/A
ATLANTIC AIRLINES	BAE ATP FREIGHTER	616	N/A
	Total	**616**	N/A
EL AL	BOEING 737-700	5	104
	BOEING 737-800	3	154
	BOEING 737-800 WINGLETS	221	153
	BOEING 767-200ER	104	189
	BOEING 767-300 PASSENGER	33	228
	BOEING 767-300ER	186	222
	BOEING 777-200ER	36	279
	Total	**588**	**202**
FLYBE	DE HAVILLAND DHC-8 DASH 8-400	512	78
	EMBRAER 175	2	88
	EMBRAER 195	12	118
	Total	**526**	**80**
Others	**Total**	**3,397**	**50**
Total		**71,920**	**174**

2.10. Total Cargo Movements & Tonnage

	2012		2013	
	Tonnes	Movements	Tonnes	Movements
Jan	1,934	147	2,274	155
Feb	2,590	165	2,439	151
Mar	2,645	164	2,937	177
Apr	2,365	149	2,106	151
May	2,361	164	2,298	169
Jun	2,348	163	2,216	158
Jul	2,518	178	2,332	164
Aug	2,637	171	2,117	158
Sep	2,832	165	2,457	155
Oct	2,461	157	2,726	166
Nov	2,646	166	2,802	163
Dec	2,327	156	2,388	161
Total	**29,663**	**1,945**	**29,092**	**1,928**

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 this section will differ from figures in section 2.1 which shows dedicated cargo movements.



3. Routes

Destination	Code	Country	Charter Operator	Scheduled Operator
Aberdeen	ABZ	UK		easyJet
Alghero	AHO	Sardinia		Ryanair
Alicante	ALC	Spain		easyJet/Monarch
Amsterdam	AMS	Netherlands		easyJet
Antalya	AYT	Turkey	Thomson	
Arrecife	ACE	Spain (Canaries)	Thomson/Monarch	Monarch / Ryanair
Bacau	BCM	Romania		Blue Air
Barcelona	BCN	Spain		easyJet
Belfast Intl	BFS	UK		easyJet
Belgrade	BEG	Serbia		Wizz Air
Berlin	SXF	Germany		easyJet
Beziers	BZR	France		Ryanair
Bodrum	BJV	Turkey	First Choice/Thomson	Monarch
Bordeaux	BOD	France		easyJet
Bourgas	BOJ	Bulgaria	Thomson	Wizz Air
Bratislava	BTS	Slovakia		Ryanair
Brno	BRQ	Czech Rep		Wizz Air
Bucharest	BBU	Romania		Wizz Air / Blue Air
Budapest	BUD	Hungary		Wizz Air/easyJet
Chisinau	KIV	Moldova		Carpatair
Cluj-Napoca	CLJ	Romania		Wizz Air
Corfu	CFU	Greece	Thomson	Monarch / easyJet
Craiova	CRJ	Romania		Wizz Air
Dalaman	DLM	Turkey	First Choice/Thomson	Monarch
Debrecen	DEB	Hungary		Wizz Air
Dortmund	DTM	Germany		easyJet
Dublin	DUB	Ireland		Ryanair
Edinburgh	EDI	UK		easyJet
Faro	FAO	Portugal	First Choice/Thomson	easyJet/Monarch
Fuerteventura	FUE	Spain (Canaries)	First Choice/Thomson	Monarch/Ryanair
Funchal	FNC	Portugal (Madeira)	Thomson	
Gdansk	GDN	Poland		Wizz Air
Geneva	GVA	Switzerland		easyJet
Gerona	GRO	Spain		Ryanair
Gibraltar	GIB	Spain		Monarch
Glasgow	GLA	UK		easyJet
Grenoble	GNB	France		easyJet
Hamburg	HAM	Germany		easyJet
Heraklion	HER	Greece	Thomson	easyJet
Iasi	IAS	Romania		TAROM
Ibiza	IBZ	Spain (Balearics)	Thomson/First Choice	easyJet/Monarch
Inverness	INV	UK		easyJet
Istanbul	SAW	Turkey		easyJet
Katowice	KTW	Poland		Wizz Air
Kaunas	KUN	Lithuania		Wizz Air
Kefalonia	KEF	Greece	Thomson	
Kerry	KIR	Ireland		Ryanair
Kiev	IEV	Ukraine		Wizz Air
Kittila	KTT	Finland	Thomson	

Destination	Code	Country	Charter Operator	Scheduled Operator
Kosice	KSC	Slovakia		Wizz Air
Knock	NOC	Ireland		Ryanair
Larnaca	LCA	Cyprus	First Choice/Thomson	Monarch
Las Palmas	LPA	Spain (Canaries)	First Choice/Thomson/Monarch	Monarch / Ryanair
Lisbon	LIS	Portugal		easyJet
Ljubljana	LJU	Slovenia		Wizz Air
Lublin	LUZ	Poland		Wizz Air
Madrid	MAD	Spain		easyJet
Mahon	MAH	Spain (Balearics)	First Choice/Thomson/Monarch	easyJet/Monarch
Malaga	AGP	Spain	Thomson	easyJet/Monarch
Malta	MLA	Malta	Thomson	Ryanair
Marrakech	RAK	Morocco		Ryanair
Milan	MXP	Italy		easyJet
Monastir	MIR	Tunisia	First Choice/Thomson	
Montpellier	MPL	France		easyJet
Munich	MUC	Germany		Monarch
Murcia	MJV	Spain		Ryanair
Mykonos	MYK	Greece		easyJet
Nice	NCE	France		easyJet
Nimes	FNI	France		Ryanair
Olbia	OLB	Italy		easyJet
Palma	PMI	Spain (Balearics)	First Choice/Thomson/Monarch	easyJet/Monarch
Paphos	PFO	Cyprus	First Choice/Thomson	easyJet
Paris	CDG	France		easyJet
Pisa	PSA	Italy		easyJet
Poznan	POZ	Poland		Wizz Air
Prague	PRG	Czech Rep		Wizz Air
Reykjavik	RKV	Iceland		easyJet
Reus	REU	Spain	Thomson	Ryanair
Rhodes	RHO	Greece	Thomson	
Riga	RIX	Latvia		Wizz Air
Rome	FCO	Italy		Monarch
Rovaniemi	RVN	Finland	Thomson	
Rzeszów	RZZ	Poland		Ryanair
Salzburg	SZG	Austria	Thomson	easyJet
Sharm El Sheikh	SSH	Egypt	Thomson	easyJet/Monarch
Sofia	SOF	Bulgaria		Wizz Air
Skopje	SKP	Macedonia		Wizz Air
Split	SPU	Croatia		Wizz Air
Tel Aviv	TLV	Israel		El Al / easyJet
Tenerife	TFS	Spain (Canaries)	First Choice/Thomson/Monarch	Monarch / Ryanair
Thessalonika	SKG	Greece	Thomson	
Timisoara	TSR	Romania		Wizz Air
Tirgu Mures	TGM	Romania	Wizz Air	
Trapani	TPS	Italy (Sicily)		Ryanair
Varna	VAR	Bulgaria		Wizz Air
Vilnius	VNO	Lithuania	Wizz Air / Ryanair	
Warsaw	WAW	Poland		Wizz Air
Wroclaw	WRO	Poland		Wizz Air
Zakynthos	ZTH	Greece	Thomson/Monarch	
Zurich	ZRH	Switzerland		easyJet

(Destinations available as at 31st December 2013)

New route for 2013

For more information visit:- www.london-luton.co.uk

3.1 New Routes

NEW ROUTES 2013

Destination	Country	Launch	Airline
Chisinau	Moldova	19-Dec-13	Carpatair
Sharm El Sheikh	Egypt	07-Nov-13	Monarch
Iasi	Romania	29-Oct-13	TAROM
Craiova	Romania	29-Oct-13	Wizz Air
Donetsk*	Ukraine	02-Oct-13	Wizz Air
Kosice	Slovakia	17-Sep-13	Wizz Air
Olbia	Italy	15-May-13	easyJet
Mykonos	Greece	26-Apr-13	easyJet

**Routes started and ended in 2013*

2013	
AIRLINE	**NEW ROUTES**
Wizz Air	3
easyJet	2
Monarch	1
Carpatair	1
TAROM	1
TOTAL	**8**
NETT 2013	**3**

ALL ROUTES ENDING 2013

Destination	Country	Ended	Airline
Jersey	UK	27-Oct-13	Flybe
Isle of Man	UK	27-Oct-13	Flybe
Lodz	Poland	30-May-13	Wizz Air
Waterford	Ireland	06-Jan-13	Aer Lingus Regional

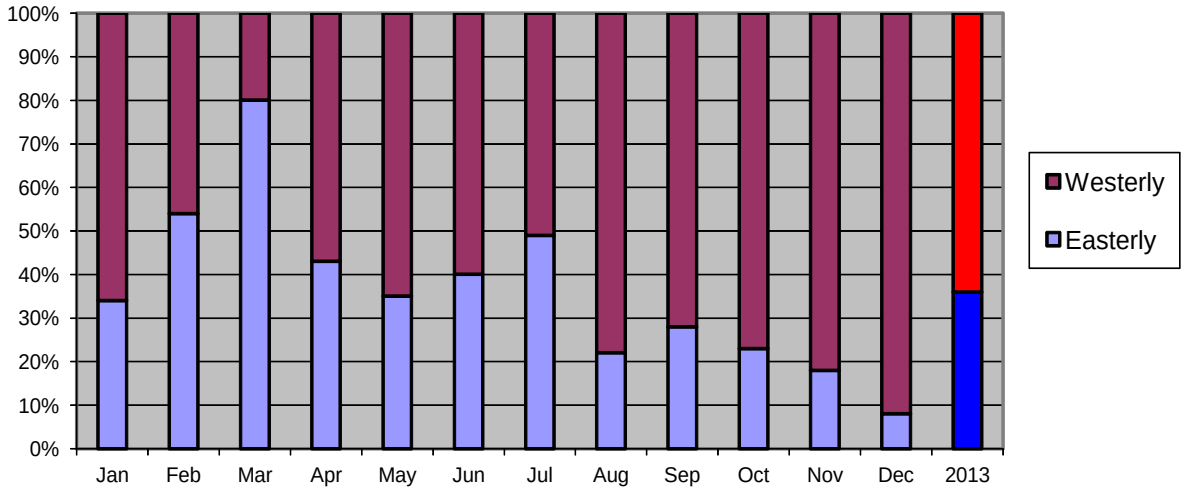
AIRLINE	ROUTES ENDED
Aer Lingus Regional	1
Wizz Air	2
Flybe	2
TOTAL	**5**

4. Runway Usage

The runway usage split (dictated primarily by wind direction) during 2013 was 36% easterly and 64% westerly (compared to 27% / 73% in 2012). A monthly breakdown is shown below, highlighting higher than average levels of easterly operations over the spring period, particularly during March 2013, in contrast to prolonged and sustained spells of westerly operations towards the end of the year, especially in December 2013. A breakdown of runway usage over the last five years is also shown, giving a historical split of 31% easterly and 69% westerly.

Year	Easterly	Westerly
2013	36%	64%
2012	27%	73%
2011	28%	72%
2010	36%	64%
2009	28%	72%
Average	**31%**	**69%**

Month	Easterly	Westerly
Jan	34%	66%
Feb	54%	46%
Mar	80%	20%
Apr	43%	57%
May	35%	65%
Jun	40%	60%
Jul	49%	51%
Aug	22%	78%
Sep	28%	72%
Oct	23%	77%
Nov	18%	82%
Dec	8%	92%
2013	**36%**	**64%**



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

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

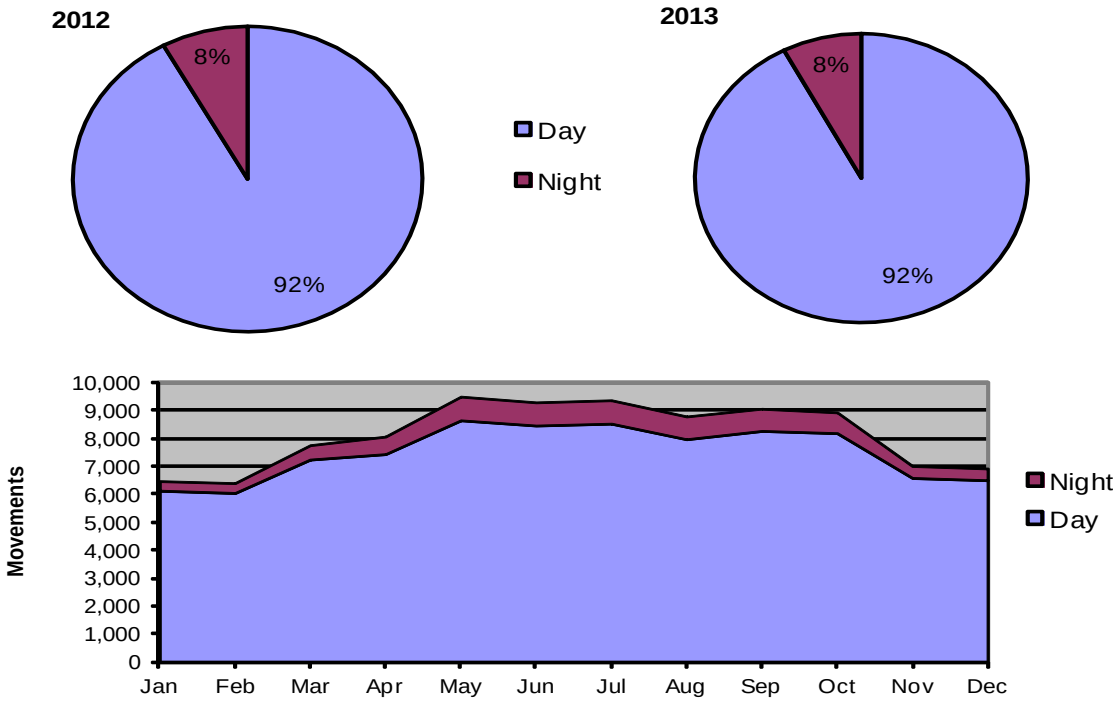
	Day (0700-2300 local)		Night (2300-0700 local)	
Year	Westerly	Easterly	Westerly	Easterly
2013	71%	29%	72%	28%
2012	86%	14%	86%	14%
2011	80%	20%	81%	19%
2010	78%	22%	76%	24%
2009	81%	19%	80%	20%
Average	**79%**	**21%**	**79%**	**21%**

4.2. Day / Night Ratio of Movements

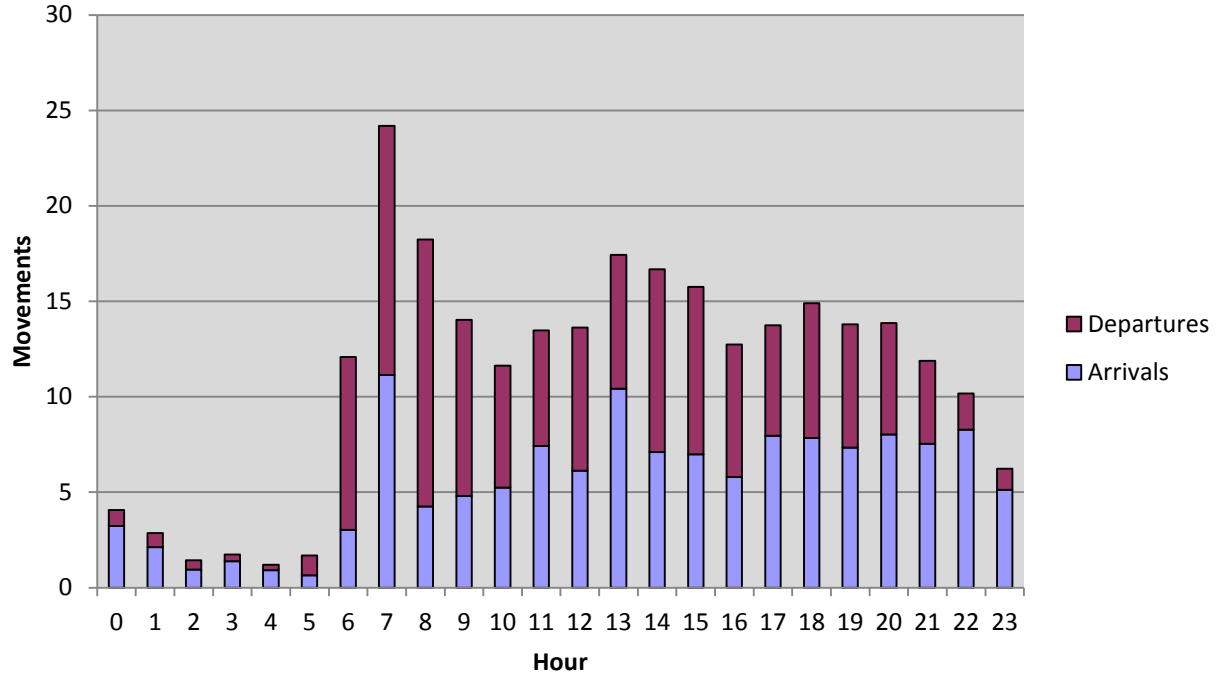
There were 7,557 night movements during 2013 (compared to 8,095 for 2012, a decrease of 7%), an average 21 movements per night (compared to 22 last year). Arriving aircraft accounted for 71% of total night movements, relating primarily to the last rotation of Luton based passenger aircraft landing back at the Airport for the night, between 23:00 hrs and midnight. The average ratio of total aircraft movements during 2013 was 92% day / 8% night (in line with 92% day / 8% night in 2012).

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

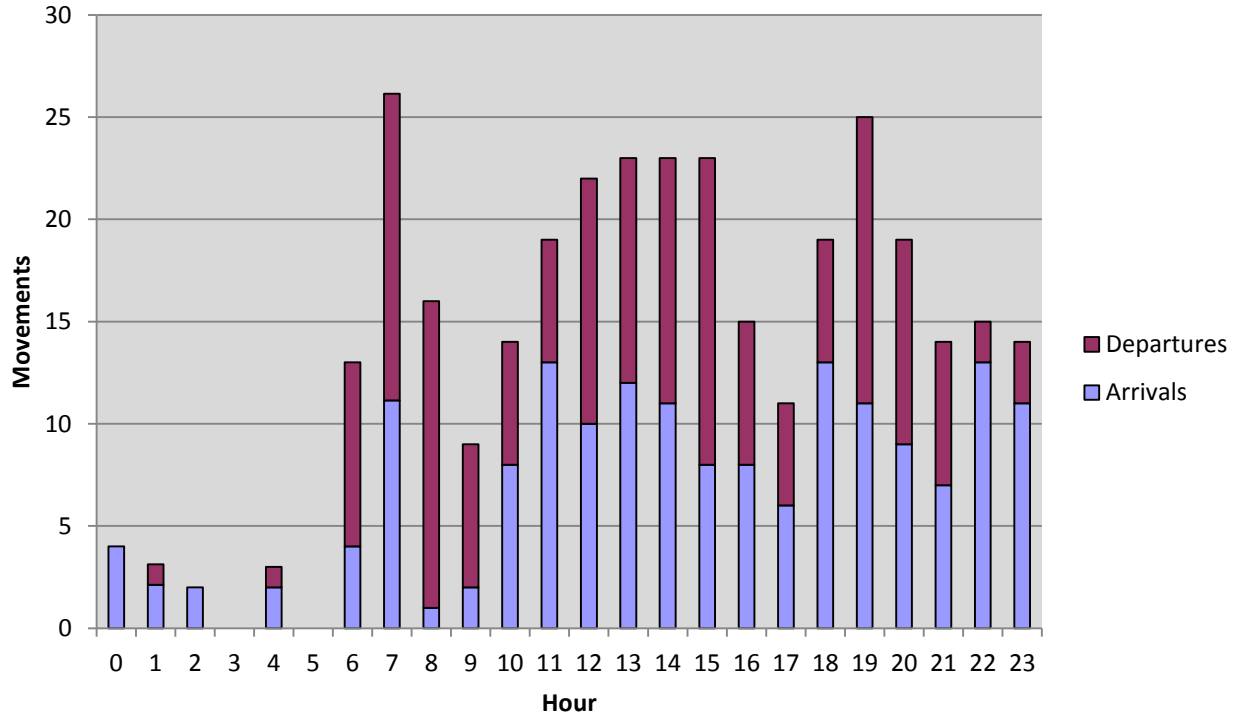
	Arrivals		Departures		Totals		
	Day	Night	Day	Night	Day	Night	Total
Jan	3,015	232	3,116	111	6,131	343	6,474
Feb	2,980	218	3,068	133	6,048	351	6,399
Mar	3,537	330	3,712	182	7,249	512	7,761
Apr	3,601	453	3,841	176	7,442	629	8,071
May	4,128	626	4,525	223	8,653	849	9,502
Jun	4,036	616	4,430	215	8,466	831	9,297
Jul	4,031	633	4,504	205	8,535	838	9,373
Aug	3,764	630	4,211	186	7,975	816	8,791
Sep	3,949	599	4,324	198	8,273	797	9,070
Oct	3,926	548	4,266	198	8,192	746	8,938
Nov	3,248	257	3,338	171	6,586	428	7,014
Dec	3,197	253	3,311	164	6,508	417	6,925
Total	**43,412**	**5,395**	**46,646**	**2,162**	**90,058**	**7,557**	**97,615**



4.3. Annual Average Hourly Movements



4.4. Hourly Movements on the 7th Busiest Day of 2013 (7th July)



Generally the busiest times of the day for annual average hourly movements during 2013 were 07:00-09:00 hrs, with smaller peaks 13:00-16:00 hrs. However, on the 7th July 2013 the peaks were 07:00–08:00 hrs, 12:00–16:00 hrs, and 19:00 –20:00 hrs.

The average busiest time for departing aircraft was 07:00-09:00 hrs annually and 07:00-09:00 hrs on 7th July 2013, with another peak between 15:00-16:00. The average busiest time for arrivals was 07:00-08:00 and 13:00-14:00 hrs annually, whilst the 7th busiest day saw peaks of arriving traffic at various times throughout

the day. The above graphs indicate a low level of average movements during the hours of 00:00–06:00 hrs, both annually and on the 7th busiest day of the year.

4.5. Departure Route Analysis

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

		Clacton*		Compton		Olney		Other**		Heli	Total
		08	26	08	26	08	26	08	26		
Jan	Day	527	1,075	326	627	163	343	9	39	7	3,116
	Night	15	26	16	36	5	13	0	0	0	111
	Total	*542*	*1,101*	*342*	*663*	*168*	*356*	*9*	*39*	*7*	*3,227*
Feb	Day	822	681	536	492	253	225	28	17	14	3,068
	Night	35	22	33	21	12	5	5	0	0	133
	Total	*857*	*703*	*569*	*513*	*265*	*230*	*33*	*17*	*14*	*3,201*
Mar	Day	1,467	334	1,014	266	457	106	41	10	17	3,712
	Night	59	17	67	10	17	7	5	0	0	182
	Total	*1,526*	*351*	*1,081*	*276*	*474*	*113*	*46*	*10*	*17*	*3,894*
Apr	Day	743	1,028	621	803	247	333	18	32	16	3,841
	Night	26	48	27	50	5	13	1	2	4	176
	Total	*769*	*1,076*	*648*	*853*	*252*	*346*	*19*	*34*	*20*	*4,017*
May	Day	686	1,329	604	1,154	246	429	29	31	17	4,525
	Night	23	75	25	82	4	8	1	2	3	223
	Total	*709*	*1,404*	*629*	*1,236*	*250*	*437*	*30*	*33*	*20*	*4,748*
Jun	Day	820	1,180	648	1,057	277	373	25	27	23	4,430
	Night	43	61	30	53	9	10	1	3	5	215
	Total	*863*	*1,241*	*678*	*1,110*	*286*	*383*	*26*	*30*	*28*	*4,645*
Jul	Day	956	1,033	909	915	289	320	37	35	10	4,504
	Night	51	44	51	48	3	7	0	0	1	205
	Total	*1,007*	*1,077*	*960*	*963*	*292*	*327*	*37*	*35*	*11*	*4,709*
Aug	Day	410	1,408	353	1,375	137	445	9	55	19	4,211
	Night	21	62	16	77	1	5	0	3	1	186
	Total	*431*	*1,470*	*369*	*1,452*	*138*	*450*	*9*	*58*	*20*	*4,397*
Sep	Day	540	1,398	462	1,224	161	453	16	47	23	4,324
	Night	27	54	26	70	5	13	0	1	2	198
	Total	*567*	*1,452*	*488*	*1,294*	*166*	*466*	*16*	*48*	*25*	*4,522*
Oct	Day	433	1,520	391	1,191	149	504	20	39	19	4,266
	Night	18	63	15	63	9	24	2	1	3	198
	Total	*451*	*1,583*	*406*	*1,254*	*158*	*528*	*22*	*40*	*22*	*4,464*
Nov	Day	294	1,387	188	798	107	479	11	49	25	3,338
	Night	12	64	13	60	2	17	0	3	0	171
	Total	*306*	*1,451*	*201*	*858*	*109*	*496*	*11*	*52*	*25*	*3,509*
Dec	Day	146	1,506	67	944	46	532	10	47	13	3,311
	Night	8	73	2	51	4	19	0	4	3	164
	Total	*154*	*1,579*	*69*	*995*	*50*	*551*	*10*	*51*	*16*	*3,475*
Day Total		*7,844*	*13,879*	*6,119*	*10,846*	*2,532*	*4,542*	*253*	*428*	*203*	*46,646*
Night Total		*338*	*609*	*321*	*621*	*76*	*141*	*15*	*19*	*22*	*2,162*
Grand Total		8,182	14,488	6,440	11,467	2,608	4,683	268	447	225	48,808

** 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.*

4.6. Arrivals Route Analysis

The following table reports the total number of arrivals, differentiating between easterly (08) and westerly (26) operations. Night movements quoted below arrived between 23:00 - 06:00, Mon-Sat and until 07:00 on Sunday. This report also includes percentage figures for flights that have achieved a Continuous Descent Approach (CDA), helping reduce both noise and fuel consumption, which involves continuous descent with no more than one section of level flight greater than 2.5Nm in length, following descent from 5000ft altitude.

		Arrivals				CDA*		
		08	26	Heli	Total	08 (%)	26 (%)	Total (%)
Jan	Day	1,024	1,984	7	3,015	85	83	**84**
	Night	93	139	0	232	79	84	**82**
	Total	***1,117***	***2,123***	***7***	***3,247***	***85***	***83***	***84***
Feb	Day	1,594	1,373	13	2,980	87	86	**87**
	Night	121	97	0	218	75	72	**74**
	Total	***1,715***	***1,470***	***13***	***3,198***	***86***	***85***	***86***
Mar	Day	2,802	718	17	3,537	88	85	**88**
	Night	269	61	0	330	78	84	**79**
	Total	***3,071***	***779***	***17***	***3,867***	***87***	***85***	***87***
Apr	Day	1,593	1,988	20	3,601	89	89	**89**
	Night	201	251	1	453	83	89	**86**
	Total	***1,794***	***2,239***	***21***	***4,054***	***89***	***89***	***89***
May	Day	1,564	2,551	13	4,128	92	88	**89**
	Night	158	466	2	626	87	87	**87**
	Total	***1,722***	***3,017***	***15***	***4,754***	***91***	***88***	***89***
Jun	Day	1,625	2,389	22	4,036	94	88	**91**
	Night	228	387	1	616	87	87	**87**
	Total	***1,853***	***2,776***	***23***	***4,652***	***93***	***88***	***90***
Jul	Day	1,992	2,027	12	4,031	95	93	**94**
	Night	325	308	0	633	90	87	**89**
	Total	***2,317***	***2,335***	***12***	***4,664***	***95***	***92***	***93***
Aug	Day	849	2,896	19	3,764	94	92	**93**
	Night	112	516	2	630	87	88	**88**
	Total	***961***	***3,412***	***21***	***4,394***	***93***	***92***	***92***
Sep	Day	1,101	2,820	27	3,949	93	91	**91**
	Night	184	415	0	599	89	85	**86**
	Total	***1,285***	***3,235***	***27***	***4,548***	***92***	***90***	***91***
Oct	Day	866	3,040	20	3,926	92	87	**88**
	Night	135	411	2	548	90	84	**84**
	Total	***1,001***	***3,451***	***22***	***4,474***	***89***	***86***	***88***
Nov	Day	593	2,632	23	3,248	90	84	**85**
	Night	48	209	0	257	89	77	**79**
	Total	***641***	***2,841***	***23***	***3,505***	***90***	***84***	***85***
Dec	Day	277	2,903	17	3,197	93	84	**85**
	Night	11	241	1	253	91	78	**78**
	Total	***288***	***3,144***	***18***	***3,450***	***93***	***83***	***84***
Day Total		***15,880***	***27,321***	***210***	***43,412***	***91%***	***88%***	***89%***
Night Total		***1,885***	***3,501***	***9***	***5,395***	***85%***	***85%***	***85%***
Grand Total		**17,765**	**30,822**	**219**	**48,807**	**90%**	**87%**	**88%**

4.7. Flight routes and sample flight tracks

Figures 4.9 and 4.10 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 4.11 and 4.12 display actual radar flight data taken over a 24 hour period during summer 2013 for both westerly and easterly operations. Arriving traffic is shown in red with departures in green.

Figures 4.13 and 4.14 show the same 24 hour periods as above, displaying the aircraft radar data in altitude bands up to 10,000ft above mean sea level. These radar tracks show a single mode of operation only i.e. easterly or westerly operations and include both arriving and departing aircraft.

Figures 4.15, 4.16 and 4.17 display aircraft track density plots for the summer period 16th June – 15th September 2013. 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 4.15 and 4.16 show arrivals or departures only, with 4.17 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.

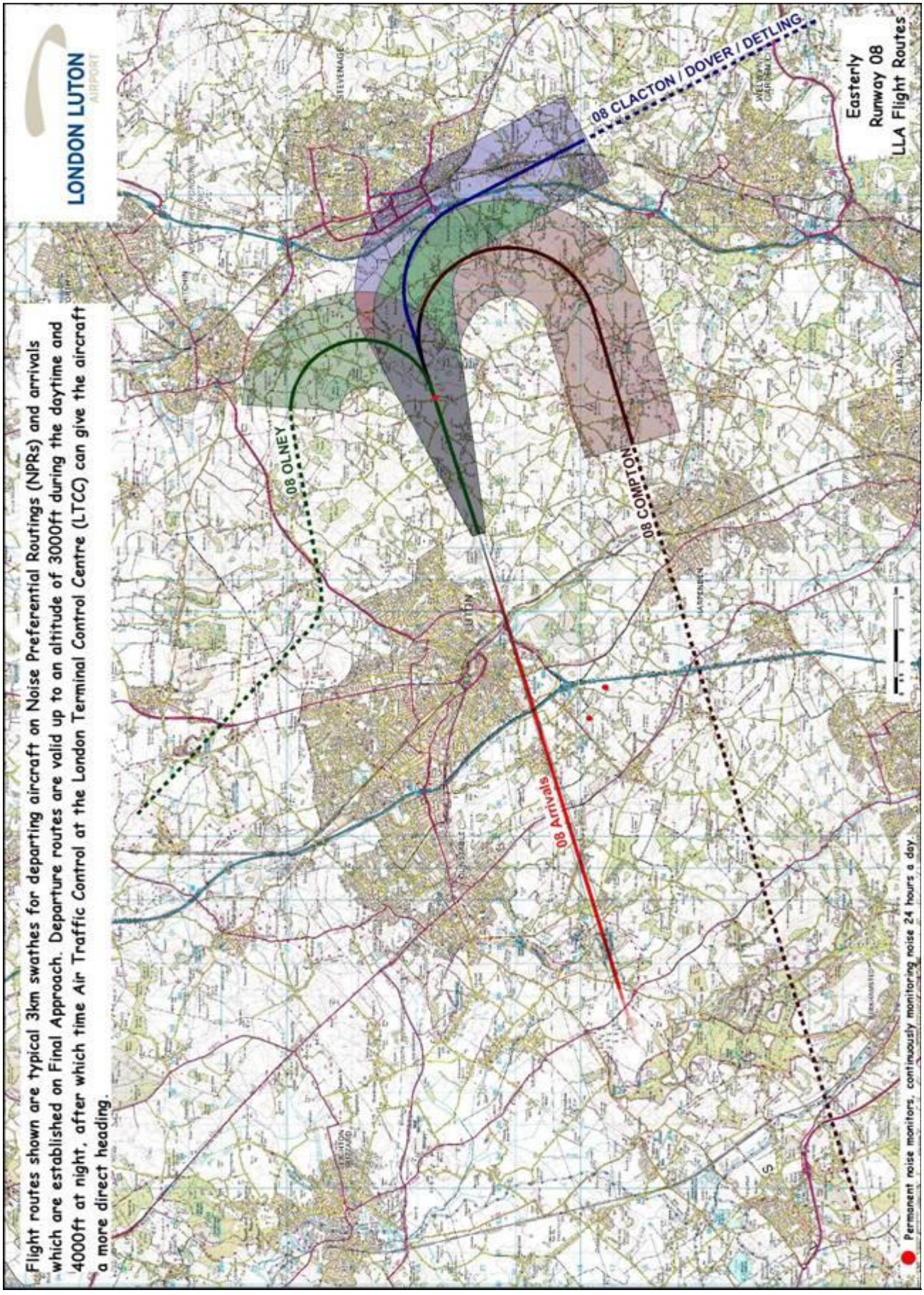
4.8. Brookmans Park Departure Routes

During westerly operations, all aircraft on the Clacton/Dover/Detling departure routes follow the same course until they reach a reporting point known as the Brookmans Park beacon. For over 10 years the Airport has been working with airlines, NATS (our Air Traffic Control provider) and the CAA to look at ways track keeping can be improved on this route, as aircraft routinely pass outside of the NPR corridor and overfly the northern parts of Hemel Hempstead and St. Albans. In 2011 a trial was undertaken with easyJet to determine if reducing the speed of aircraft from 230-250 knots to 220 knots on the second turn to the east and initiating the turn point around 1 nautical mile earlier, enabled aircraft to track closer to the nominal route centreline.

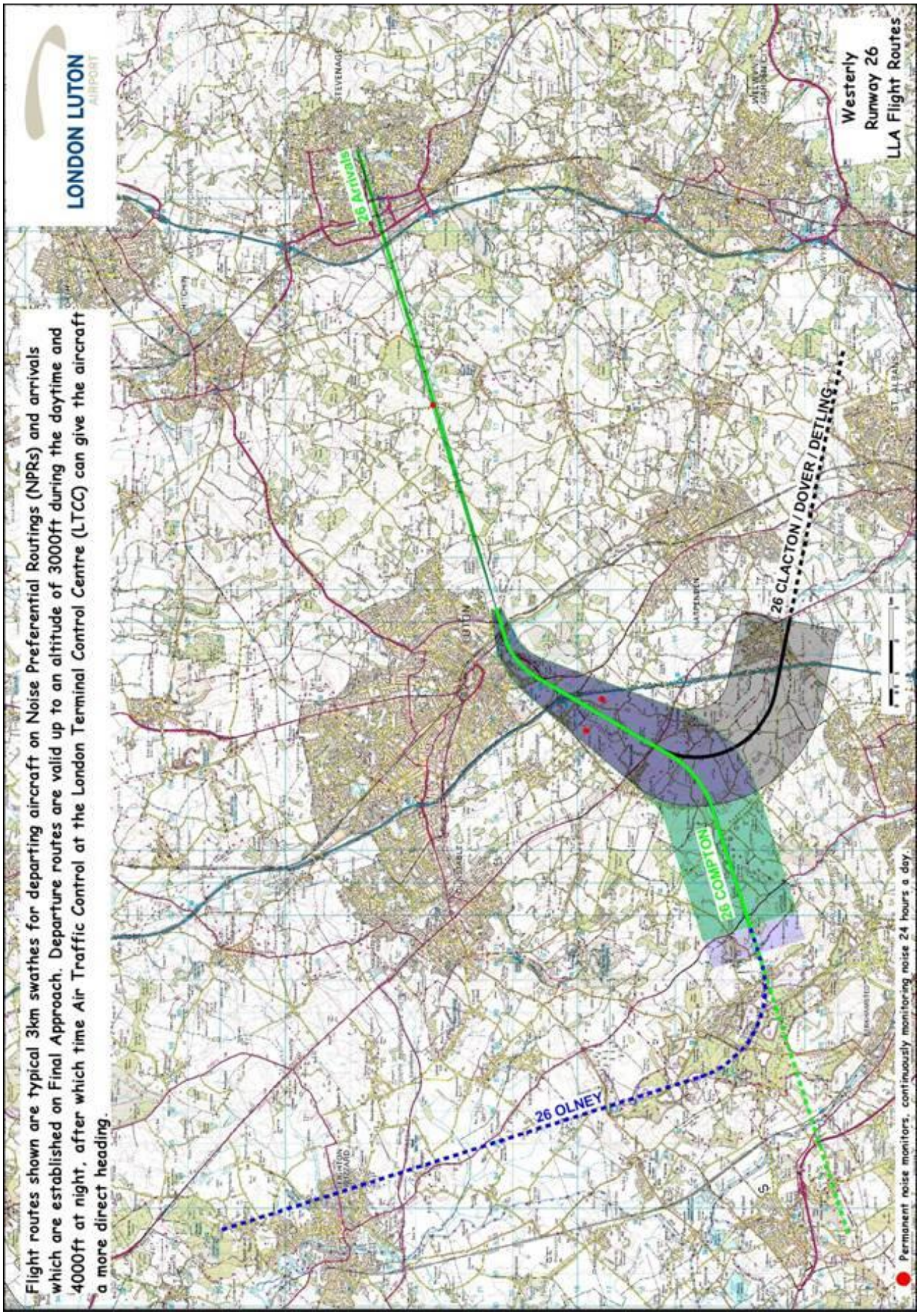
Whilst the easyJet trial was successful in terms of aircraft following the nominal track more closely, following extensive community feedback it became apparent that the nominal track centreline was not necessarily in the best place anymore to avoid centres of population, particularly in relation to Redbourn.

Further trials were carried out in 2013 using RNAV1 navigation procedures to determine whether track-keeping can be improved using this technology. Further information on the outcome of these trials and progress made to resolve this issue has been provided in Section 8.10.

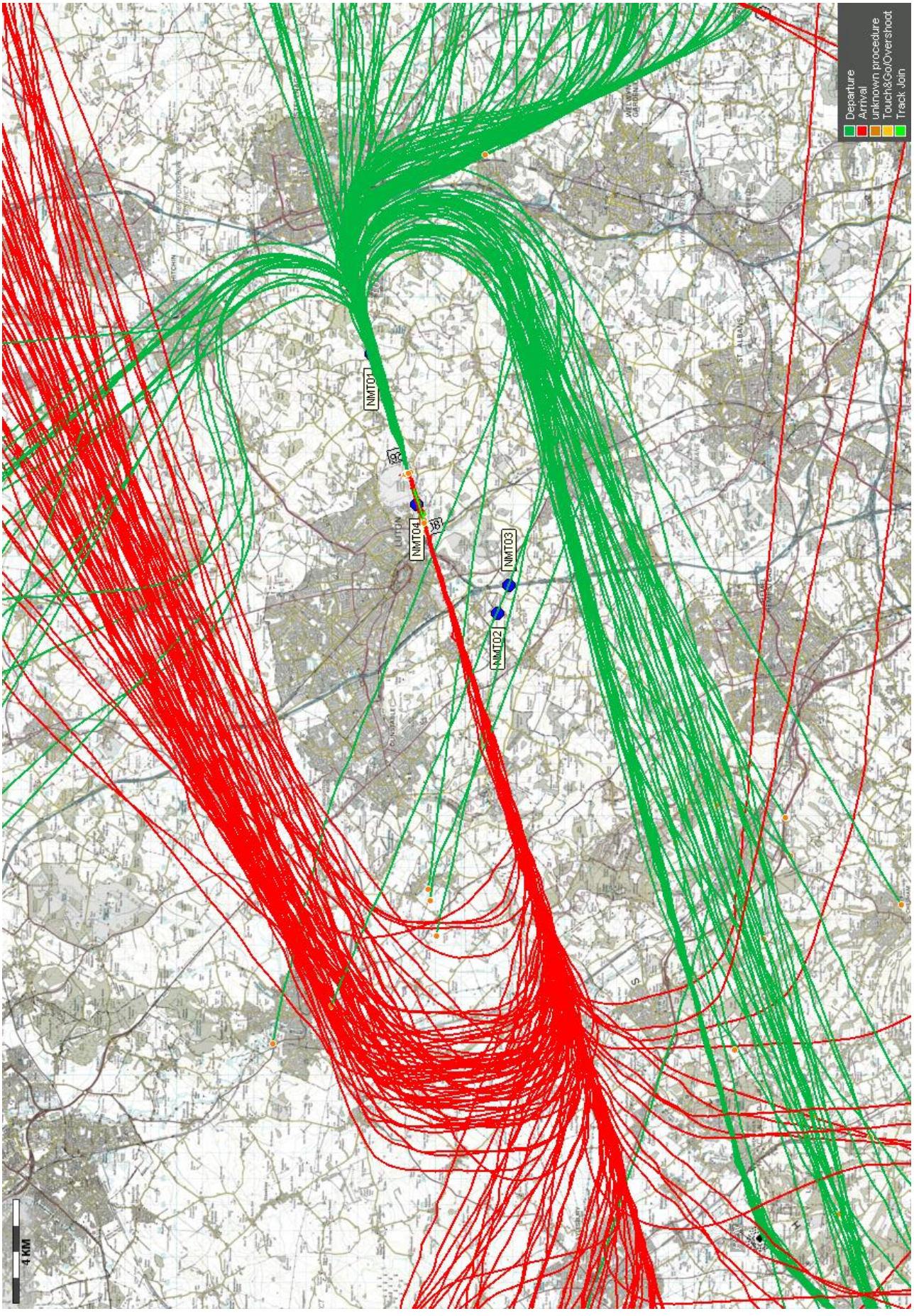
4.9. Plan showing Easterly (08) flight routes



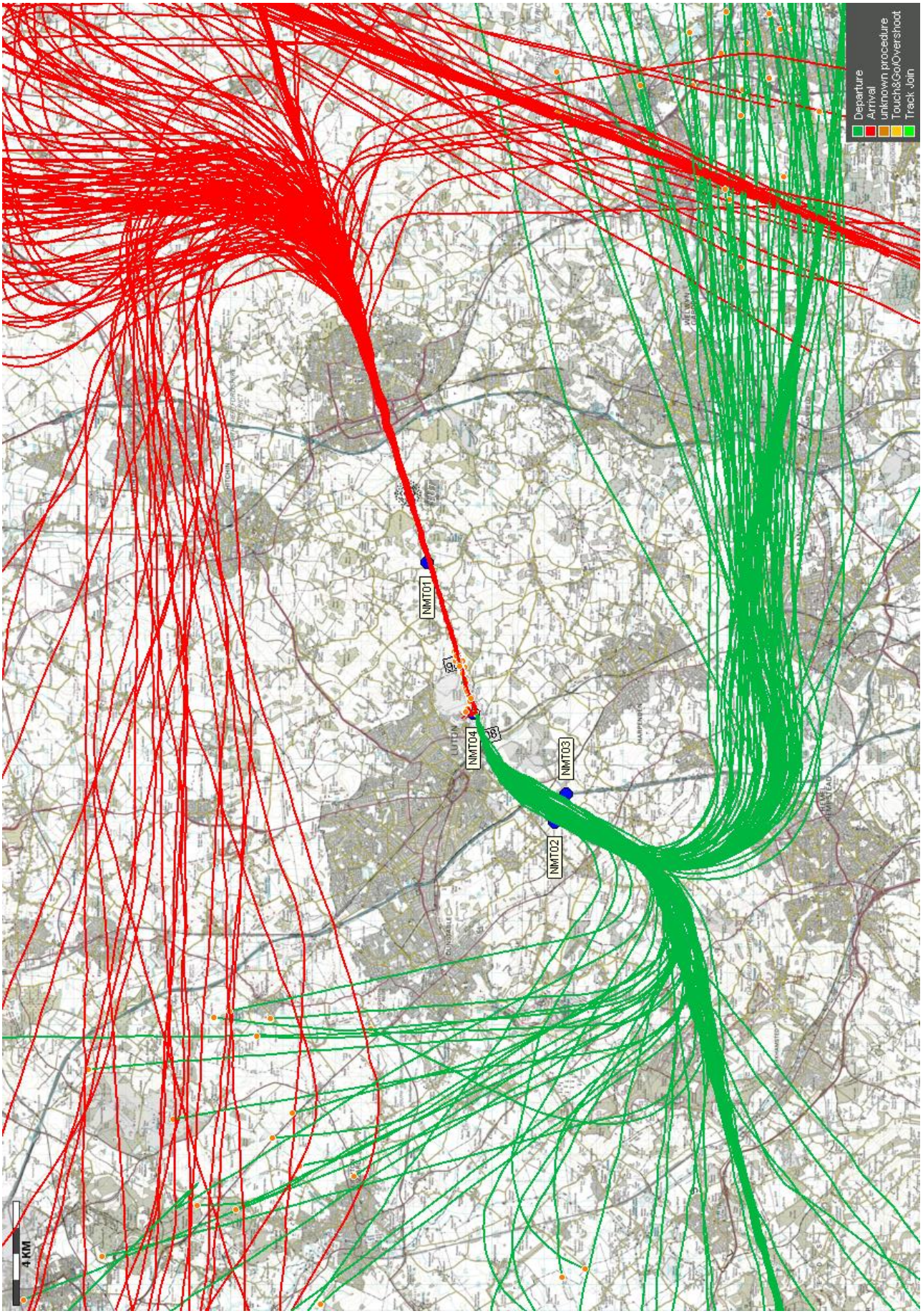
4.10. Plan showing Westerly (26) flight routes



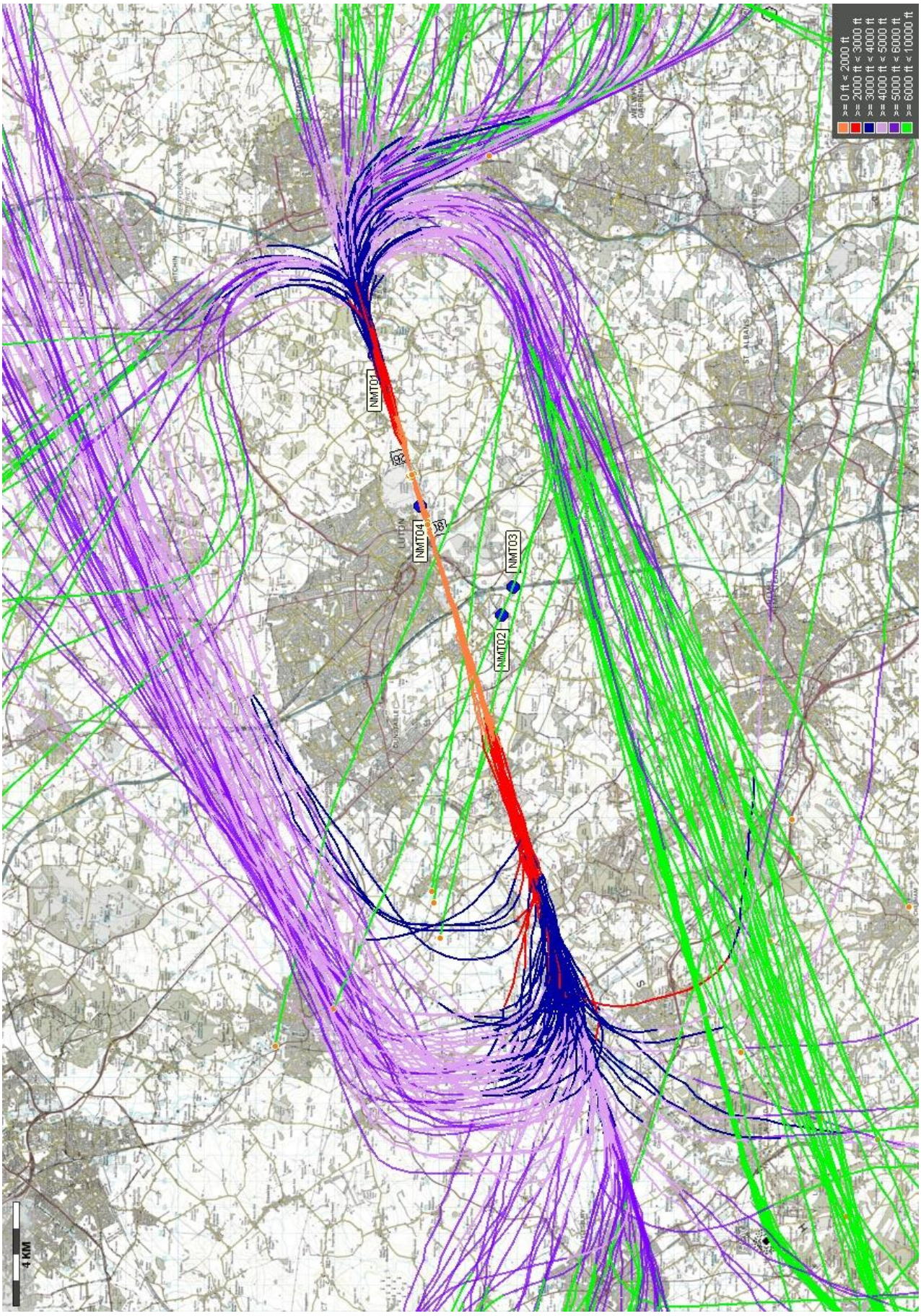
4.11. Arrivals and Departures – Easterly (08) Flight Routes (24 hour period)



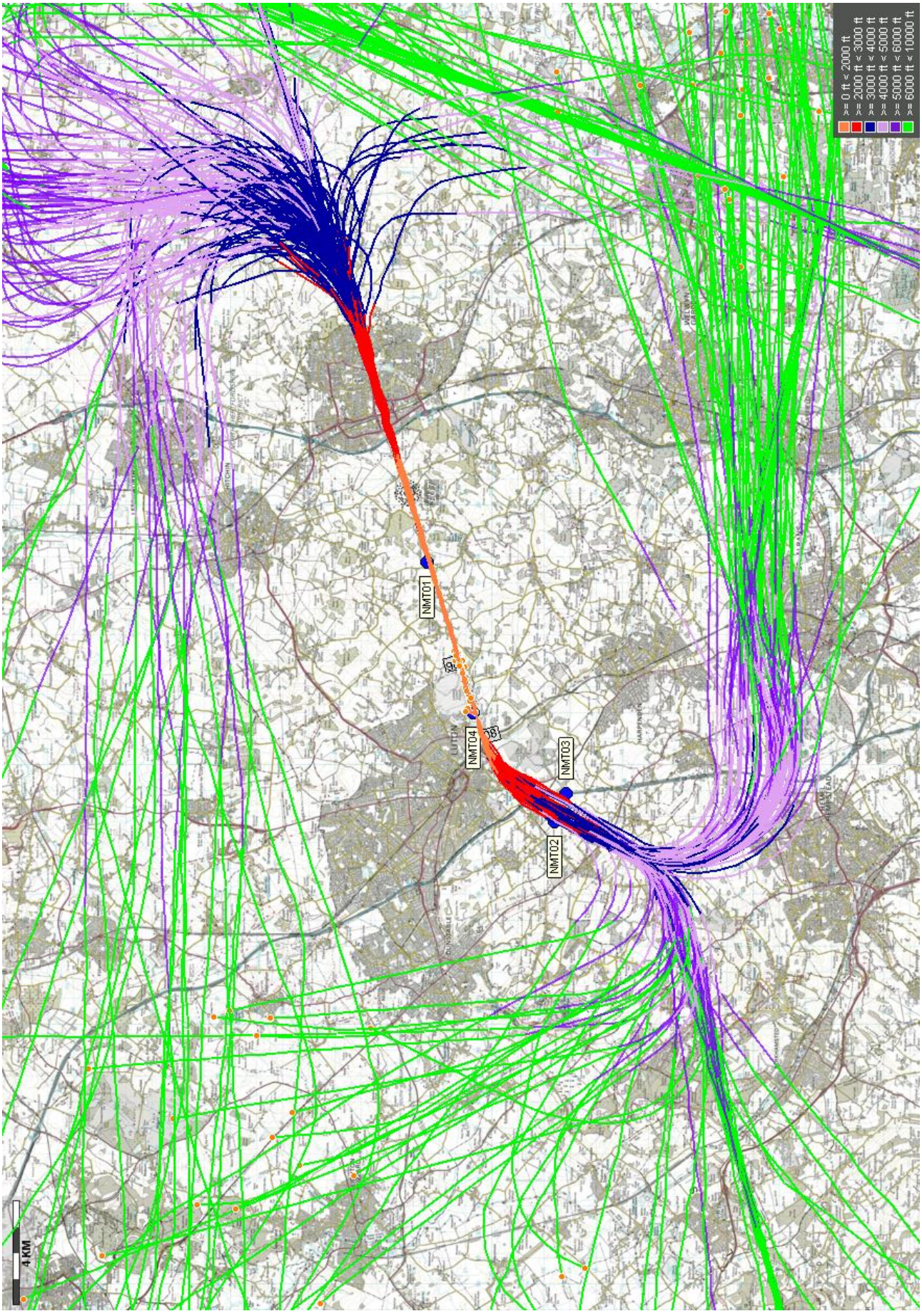
4.12. Arrivals and Departures – Westerly (26) Flight Routes (24 hour period)



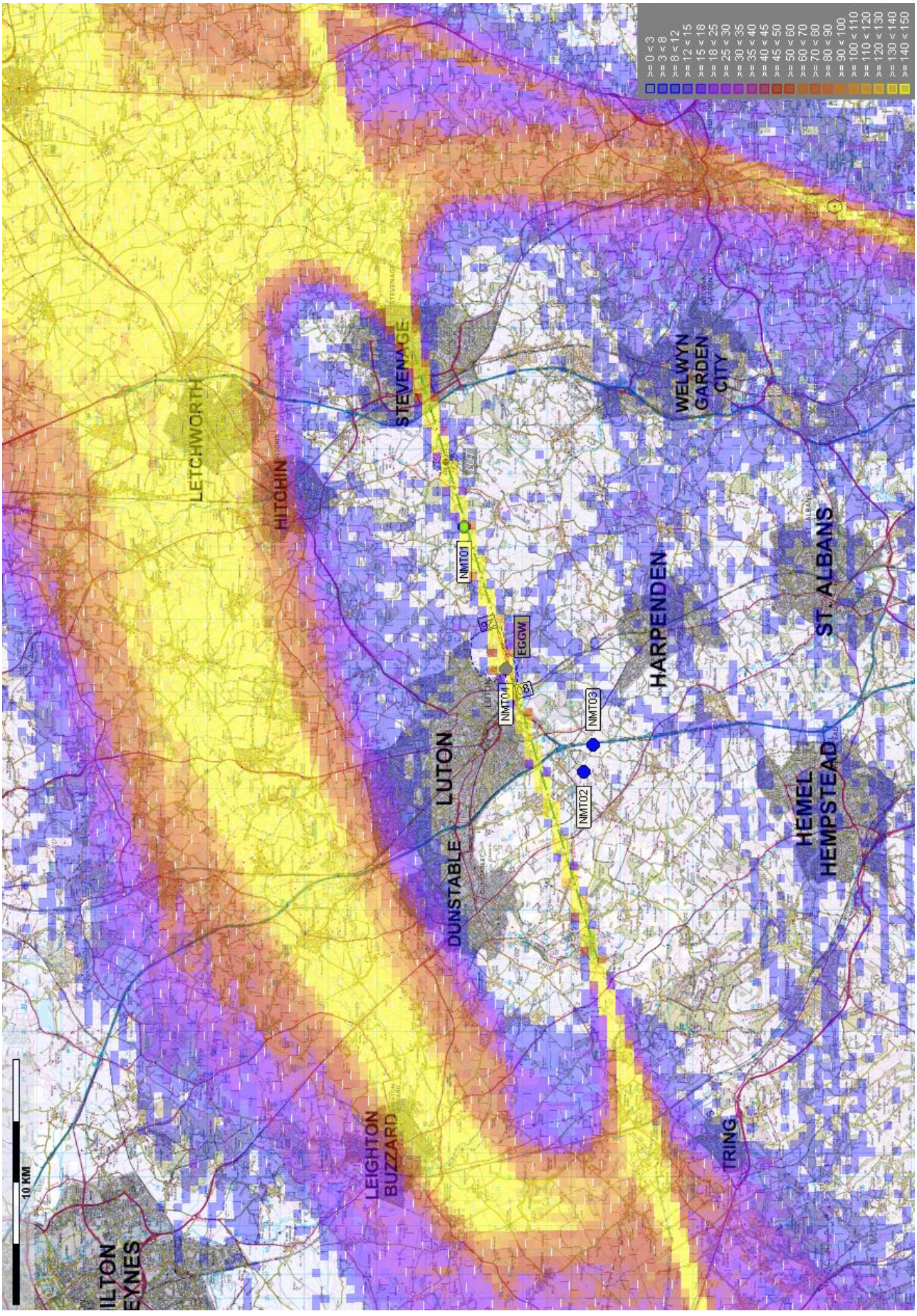
4.13. Flight Levels – Easterly (08) Flight Routes (24 hour period)



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

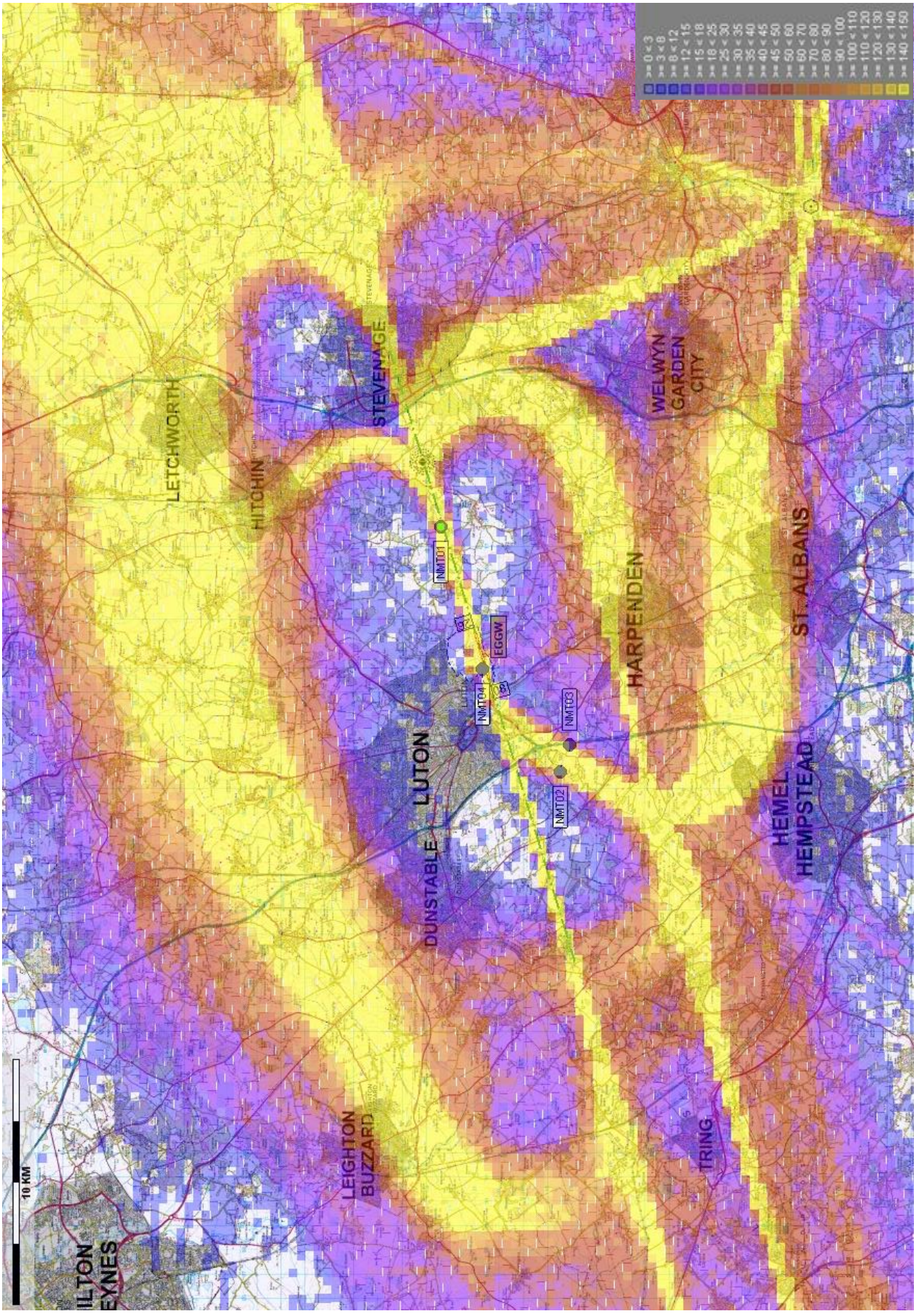


4.15. Plot Density – 16th June – 15th September 2013 - Arrivals only



4.16. Plot Density – 16th June – 15th September 2013 - Departures only

4.17. Plot Density – 16th June – 15th September 2013 - Arrivals and Departures



5. Noise Monitoring Data

The aircraft noise generated by the operation of the Airport has always been an important consideration and is incorporated in the planning framework for the area in which the Airport is located (see Section 11). Regard must be paid to the Borough of Luton Local Plan, so aircraft noise is monitored and reviewed by the LLACC on a quarterly basis.

Furthermore, in response to the Environmental Noise Directive (2002/49/EC), which requires all Member States within the European Union to produce Noise Maps and Action Plans for the main sources of environmental noise, including airports, a Draft Noise Action Plan was prepared by the Airport during 2009. This was produced in partnership with the LLACC, the Air Traffic Control provider and airline partners and a 16 week consultation period on this document was launched on 28th September 2009. Following consideration of consultation responses and taking into account these views, a final Draft Noise Action Plan was submitted to the Department for Environment, Food and Rural Affairs (DEFRA), for approval, at the end of January 2010. LLA published the final Noise Action Plan in January 2012, following formal adoption by the Secretary of State for Environment, Food and Rural Affairs. Under Section 7 of this report there is a progress update on the actions outlined within this Noise Action Plan.

A review of the LLA Noise Action Plan 2010-2015 was required by DEFRA in 2013 to incorporate updated noise mapping data from 2011. The updated version, covering the period 2013-2018 will be consulted on and submitted to DEFRA for approval once the planning decision and related conditions have been confirmed.

5.1. Departure Noise Levels

LLA uses the International Civil Aviation Organisation (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 4.9 and 4.10 show the locations of the monitoring points, which are set at 6,500m from the aircraft start of roll, at either end of the runway. This method records the maximum noise level at a point, rather than the way it is spread over the surrounding area, which is separately measured by Leq. The maximum-recorded noise level for each departure is used. All aircraft type departures are recorded not just jets, however helicopters and small light aircraft are not required to follow Noise Preferential Routings (NPRs) so they will not be recorded.

The detection threshold for the noise monitoring terminals is 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, tractors, 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 2013 no departures exceeded the 94dB(A) daytime noise violation level, whilst there were 4 night noise violations (a combination of three A30B cargo jets and one B734 passenger jet aircraft). Continuous monitoring indicates that the vast majority of aircraft operated with individual maximum noise levels well below the current violation levels.

During the daytime 99% of correlated departing aircraft recorded maximum noise levels less than 79dB(A), with 87% registering below 76dB(A) and 37% of correlated daytime departures registering below 73dB(A). Throughout the year 369 correlated daytime departures (1%) registered maximum noise levels above 79dB(A) but there were no daytime noise exceedences.

The night period is taken as 23:00 – 06:00 local time, Monday to Saturday, and until 07:00 on a Sunday. During the night 97% of correlated departures recorded maximum noise levels below 79dB(A), with 82% below 76dB(A) and 49% of correlated night departures registering below 73dB(A). During the year 40 correlated night departures (3%) registered maximum noise levels above 79dB(A) with 4 departures exceeding the night noise violation level of 82dB(A). Details of these noise penalties are listed in section 5.5.

5.2. Noise and Track Monitoring System

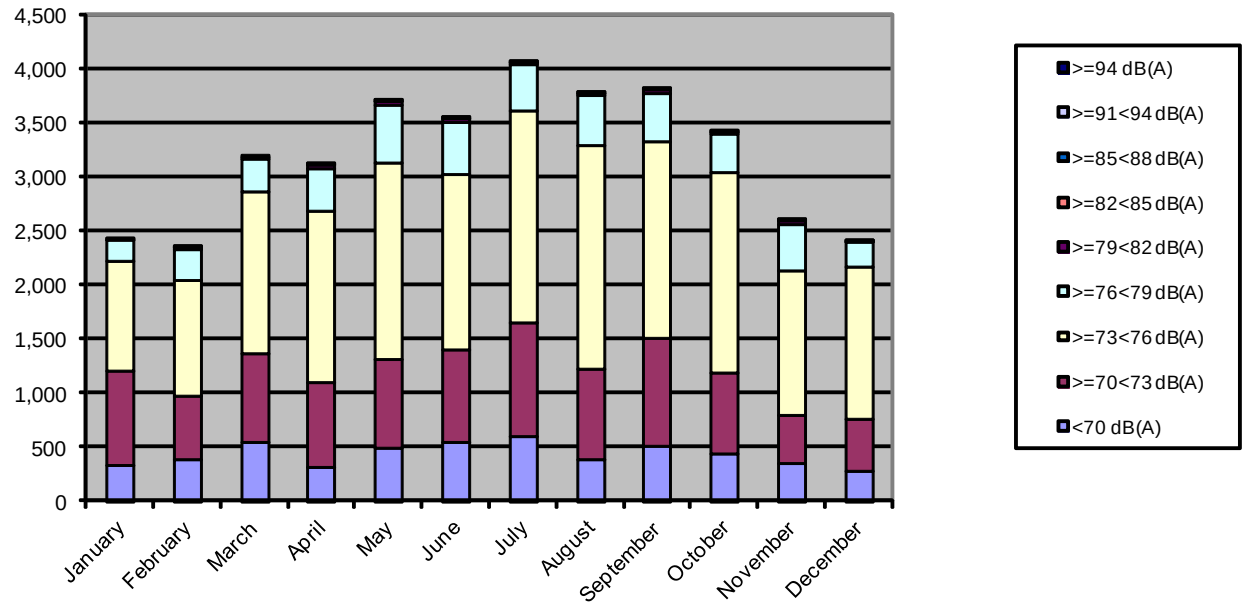
The Topsonic Noise and Track Monitoring system has been operational for 100% of the time during 2013. New features and system enhancements continue to improve the functionality and capabilities available to the Airfield Environment Office and the Topsonic system has been utilised in compiling the details within this report.

TraVis, an online flight-tracking tool enables the general public to see for themselves the actual flown tracks of LLA aircraft departures and arrivals. This can be viewed online at the following link on the airport website. http://www.london-luton.co.uk/en/flighttracking/ .

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)

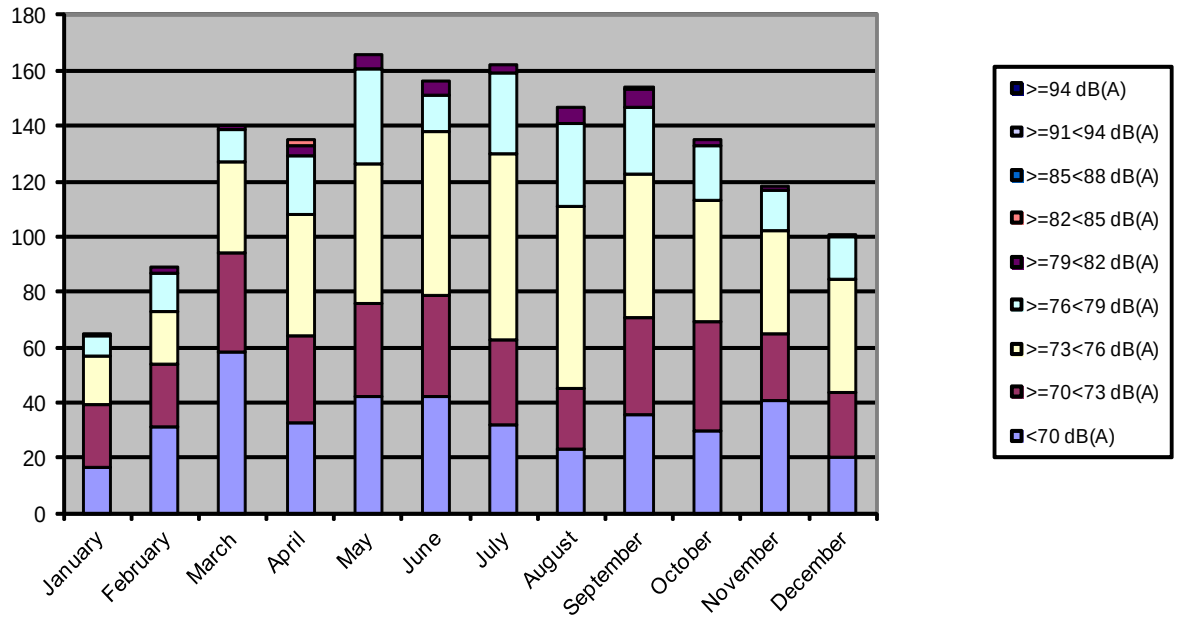
	Number of Departures (Daytime)										
	<70 dB(A)	**>=70<73 dB(A)**	**>=73<76 dB(A)**	**>=76<79 dB(A)**	**>=79<82 dB(A)**	**>=82<85 dB(A)**	**>=85<88 dB(A)**	**>=88<91 dB(A)**	**>=91<94 dB(A)**	**>=94 dB(A)**	**Total**
January	325	873	1,005	196	8	0	1	0	0	0	2,408
February	366	591	1,079	275	24	1	1	1	0	0	2,338
March	535	811	1,507	298	21	5	0	2	0	0	3,179
April	305	787	1,574	402	27	1	1	2	0	0	3,099
May	485	812	1,822	527	39	3	6	3	0	0	3,697
June	526	862	1,626	481	30	6	2	2	0	0	3,535
July	583	1,057	1,954	425	22	5	4	1	0	0	4,051
August	380	838	2,056	464	23	4	2	0	0	0	3,767
September	490	1,005	1,816	444	40	5	1	1	0	0	3,802
October	417	753	1,850	359	25	3	2	0	0	0	3,409
November	328	451	1,341	426	31	2	1	1	0	0	2,581
December	269	470	1,409	232	7	2	1	0	0	0	2,390
% Total	*13.1%*	*24.3%*	*49.8%*	*11.8%*	*0.8%*	*0.1%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	100.0%
Total	**5,009**	**9,310**	**19,039**	**4,529**	**297**	**37**	**22**	**13**	**0**	**0**	**38,256**



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 82dB(A) is fined accordingly)

	Number of Departures (Night)										
	<70 dB(A)	>=70<73 dB(A)	>=73<76 dB(A)	>=76<79 dB(A)	>=79<82 dB(A)	>=82<85 dB(A)	>=85<88 dB(A)	>=88<91 dB(A)	>=91<94 dB(A)	>=94 dB(A)	Total
January	17	22	18	7	0	1	0	0	0	0	65
February	31	23	19	14	2	0	0	0	0	0	89
March	58	36	33	12	1	0	0	0	0	0	140
April	33	31	44	21	4	2	0	0	0	0	135
May	42	34	50	35	5	0	0	0	0	0	166
June	42	37	59	13	5	0	0	0	0	0	156
July	32	31	67	29	3	0	0	0	0	0	162
August	23	22	66	30	6	0	0	0	0	0	147
September	36	35	52	24	6	1	0	0	0	0	154
October	30	39	44	20	2	0	0	0	0	0	135
November	41	24	37	15	1	0	0	0	0	0	118
December	20	24	41	15	1	0	0	0	0	0	101
% Total	*25.8%*	*22.8%*	*33.8%*	*15.0%*	*2.3%*	*0.3%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*100%*
Total	**405**	**358**	**530**	**235**	**36**	**4**	**0**	**0**	**0**	**0**	**1,568**



5.5. Noise Violations

LLA operates a noise violation policy whereby a surcharge of between 300% and 600% of the combined Landing and Navigation Service Charge is applied in respect of any landing prior to a take-off on which noise violation levels, as set out below, are exceeded. These violation limits encourage airlines to operate modern and quieter aircraft types.

The daytime noise violation level of 94dB(A) is in line with the other major London airports whilst the current night noise violation level of 82dB(A) is now lower than at the designated 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)

>82 – 85 dB(A) 300% surcharge

>85 – 88 dB(A) 500% surcharge

>88 dB(A) 600% surcharge

5.6. Daytime Noise Violations during 2013

There were no violations of the daytime noise level in 2013, in line with 2012.

5.7. Night Noise Violations during 2013

There were a total of 4 violations of the 82dB(A) night noise violation level in 2013 (details below), compared to 3 in 2012.

Date / Time (Local)	Aircraft Type	Noise Level	Penalty
11/01/2013 04:01 hrs	A30B (MNG Cargo)	82.6dB(A)	300% of runway charge
19/04/2013 02:50 hrs	A30B (MNG Cargo)	82.4dB(A)	300% of runway charge
26/04/2013 02:50 hrs	A30B (MNG Cargo)	82.5dB(A)	300% of runway charge
11/09/2013 01:13 hrs	B734 (Blue Air)	82.6dB(A)	300% of runway charge

6. Noise Contours

6.1. Leq

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

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

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

The Aircraft Noise Model

The noise contours for the Airport are produced using INM (the Integrated Noise Model) version 7.0d, which is the method used by many other airports in the UK.

The 2012 contours were produced using INM version 7.0c. On 30th May 2013, INM version 7.0d was released. The main changes in the new version relate to the addition of new aircraft types, although none of these currently operate in significant numbers at London Luton Airport. Following a validation exercise, it was concluded that the update does not have a significant effect on the contours.

6.2. Annual Noise Contours Summer 2013

Work has been completed on the production of the annual noise contours for summer 2013 covering the standard summer period from the 16th June to the 15th September inclusive, using the latest version of INM version 7.0d.

The day-time results for 2013 are shown below, together with the equivalent results for the previous summer. Figures for the base year of 1984 and the predicted contour for 1999 are also shown, for comparison purposes:

Contour areas (Daytime)

$L_{Aeq, 16\ hour}$ **Day-time**	***1984 (km^2)***	***1999 (km^2)***	**2012 *(km^2)***	**2013 *(km^2)***	**Difference 2012-2013 (km^2)**
>72	*1.63*	*1.5*	0.8	0.8	0.0
>69	*2.80*	*2.5*	1.4	1.3	-0.1
>66	*4.86*	*4.4*	2.6	2.3	-0.3
>63	*9.1*	*7.3*	5.2	4.8	-0.4
>60	*17.18*	*11.8*	8.7	8.4	-0.3
>57	***31.52***	***19.6***	**14.7**	**13.8**	**-0.9**

The night-time results for 2013 are shown below, together with the equivalent results for the previous summer. Figures for the base year of 1984 and the predicted contour for 1999 are also shown, for comparison purposes:

Contour areas (Night-time)

$L_{Aeq, 8\ hour}$ Night-time	*1984 (km^2)*	*1999 (km^2)*	2012 (km^2)	2013 (km^2)	Difference 2011-2012 (km^2)
>72	*0.79*	*1.1*	0.4	0.4	0.0
>69	*1.39*	*1.8*	0.6	0.6	0.0
>66	*2.42*	*3.0*	1.0	0.9	-0.1
>63	*4.01*	*5.2*	1.7	1.5	-0.2
>60	*7.06*	*8.3*	3.7	2.9	-0.8
>57	*13.05*	*13.2*	6.7	5.7	-1.0
>54	*24.48*	*21.6*	11.5	9.8	-1.7
>51	*44.92*	*36.0*	20.0	17.2	-2.8
>48	***85.04***	***60.6***	**36.0**	**30.7**	**-5.3**

Considering the 57 dB LAeq,16h day-time noise contour there is a small decrease in area of approximately 6% when comparing the 2013 contour with the 2012 contour. Considering the 48 dB LAeq,8h night-time noise contour there is a significant decrease in area of approximately 15% when comparing the 2013 contour with the 2012 contour. This is mainly due to the decrease in movements.

The 2013 results are significantly below the 1984 values and also below the 1999 predicted values which, if exceeded, would require a noise reduction plan to be implemented.

The modal split for summer 2013 was 71% westerly / 29% easterly compared with 86% westerly / 14% easterly in summer 2012.

In terms of movements, the daytime movements (over the 92 day contour period) decreased from 24,294 in 2012 to 23,649 in 2013 and the night-time movements also decreased from 4,414 to 3,711, year on year.

6.3. Contour Population Counts

The population counts for this year were calculated using the CACI Ltd, 2012 postcode database. Each postcode in the database is described by a single geographical point, and if this point is within a contour then all of the dwellings and population in the postcode are counted.

6.4. Day-time Contour Results Summer 2013

$L_{Aeq, 16\ hour}$ Day-time	2012 Dwellings	2012 Population	2013 Dwellings	2013 Population
>72	0	0	0	0
>69	0	0	0	0
>66	5	10	3	6
>63	383	1,064	383	1,064
>60	1,103	3,006	1,156	3,164
>57	**3,034**	**7,321**	**2,975**	**7,128**

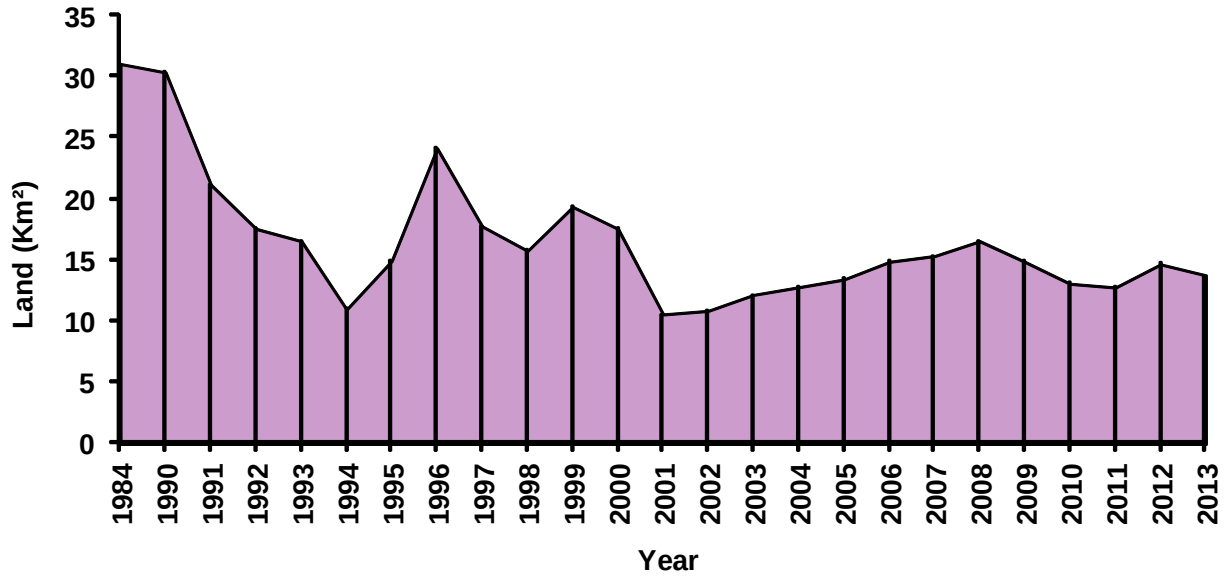
6.5. Night-Time Contour Results Summer 2013

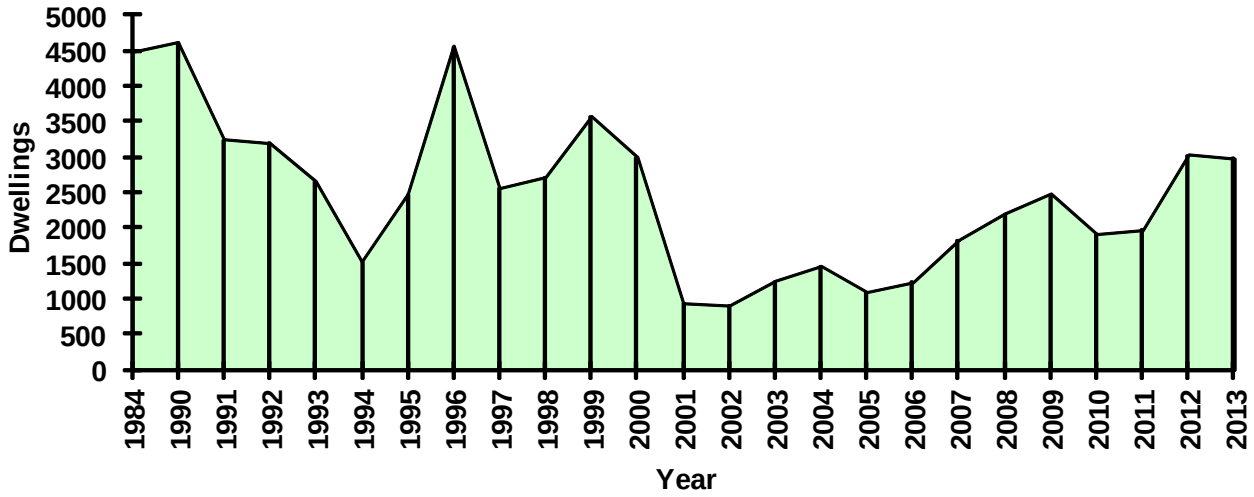
$L_{Aeq, 8hour}$ Night-time	2012 Dwellings	2012 Population	2013 Dwellings	2013 Population
>72	0	0	0	0
>69	0	0	0	0
>66	0	0	0	0
>63	1	2	1	2
>60	15	36	10	27
>57	634	1,740	540	1,478
>54	1,673	4,563	1,619	4,377
>51	3,958	9,304	3,577	8,475
>48	**6,701**	**15,790**	**6,390**	**14,974**

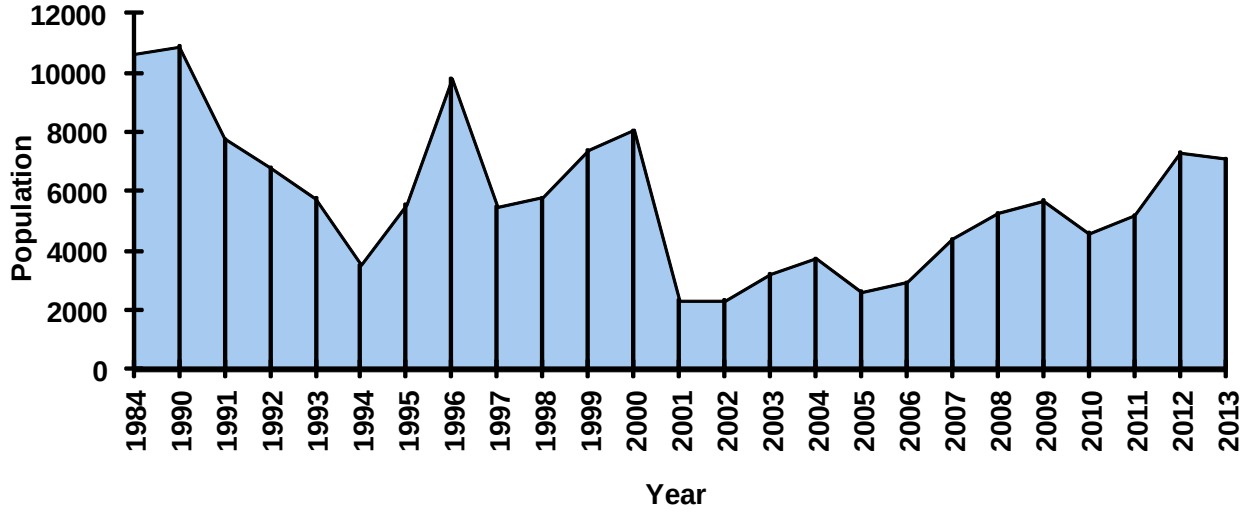
In the above tables the results for households and resident populations are cumulative, i.e. values presented for larger contours (geographically) include the values for those contours within them.

When looking at the day-time results there are generally small decreases in the numbers of dwellings and the population within the contours when comparing 2013 with 2012. For the 57 dB(A) contour the decrease is around 3%. For the night-time contours there are consistent decreases in the numbers of dwellings and the population within the contours when comparing 2013 with 2012, for example for the 48 dB(A) contour the decrease in both is around 5%. The reductions are mainly due to reduction of flight movements.

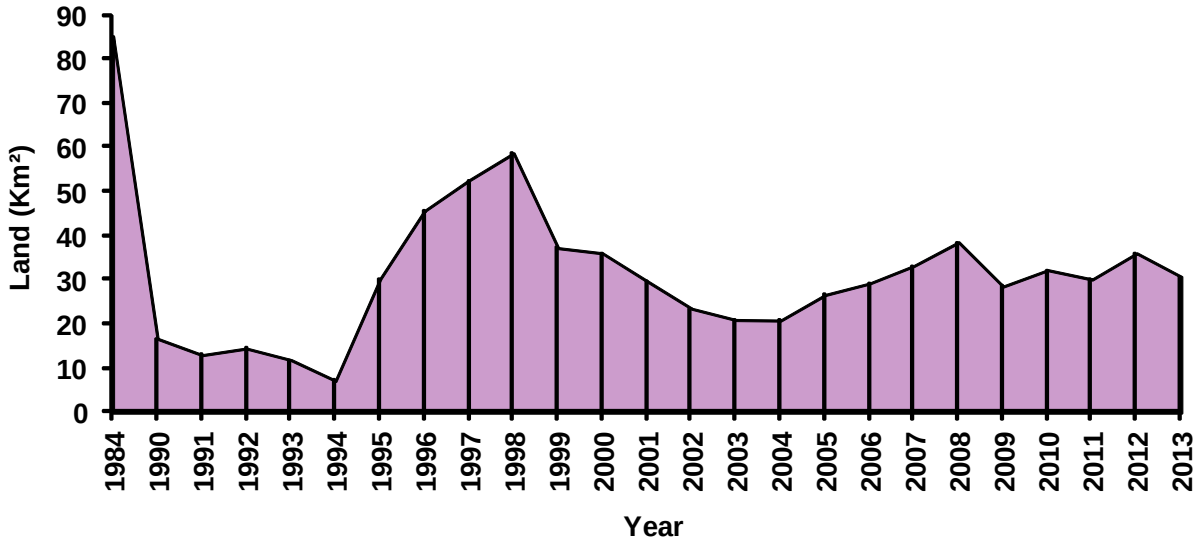
6.6. Noise Impact Within 16-Hour (Day) Leq Contours Summer 2013

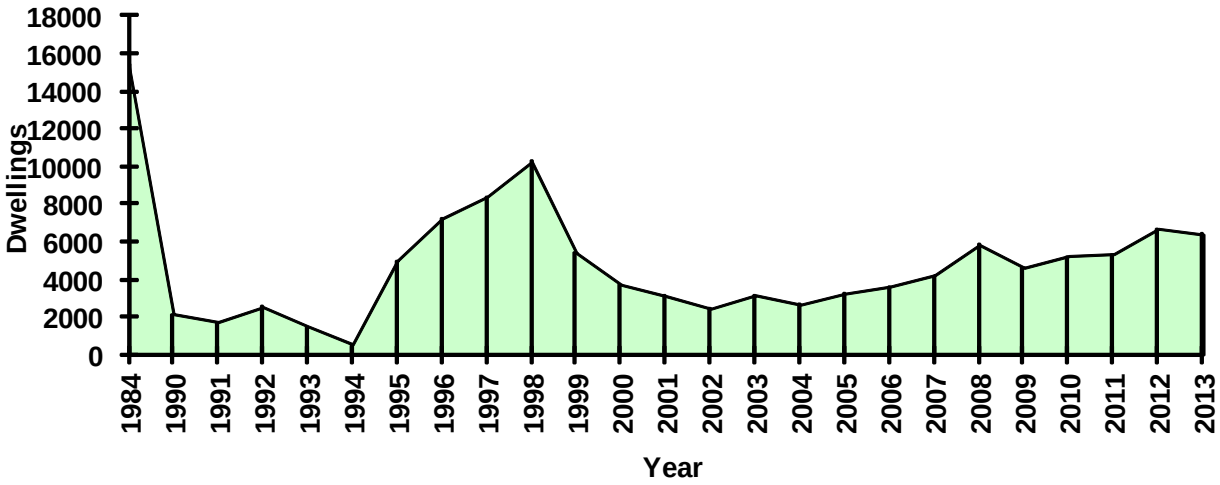


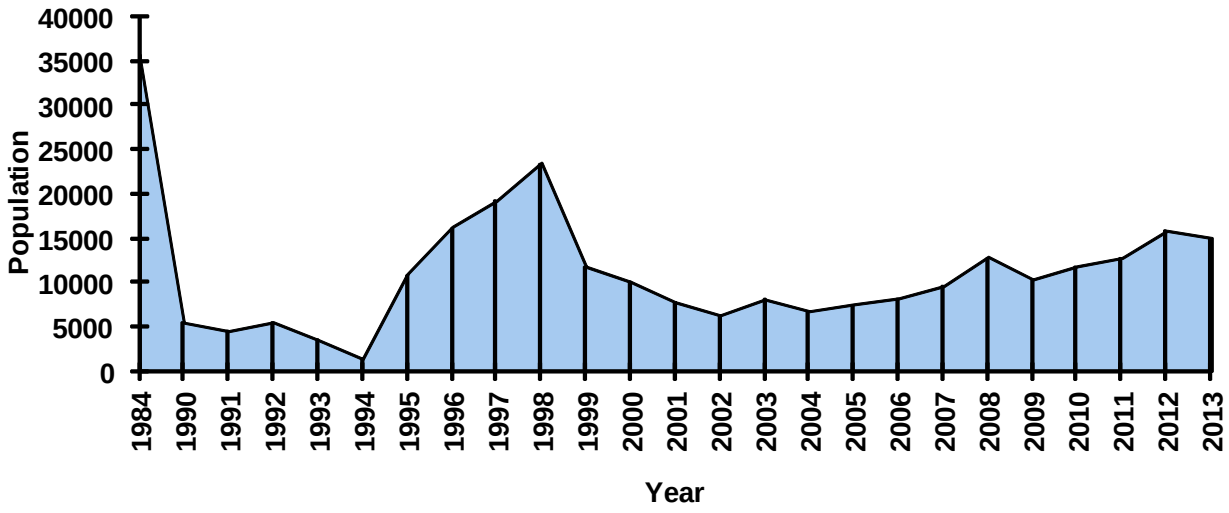




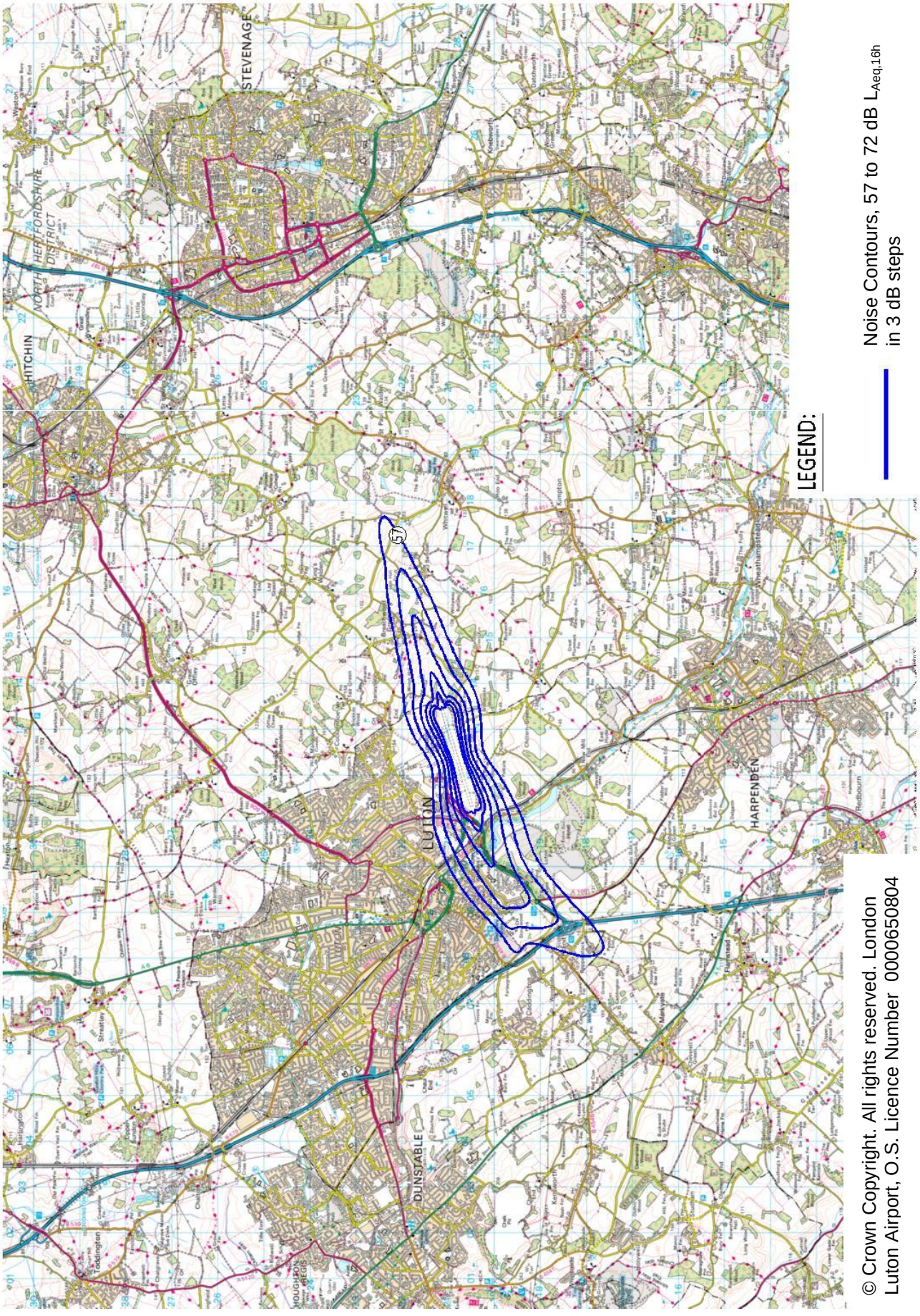
6.7. Noise Impact Within 8-Hour (Night) Leq Contours Summer 2013



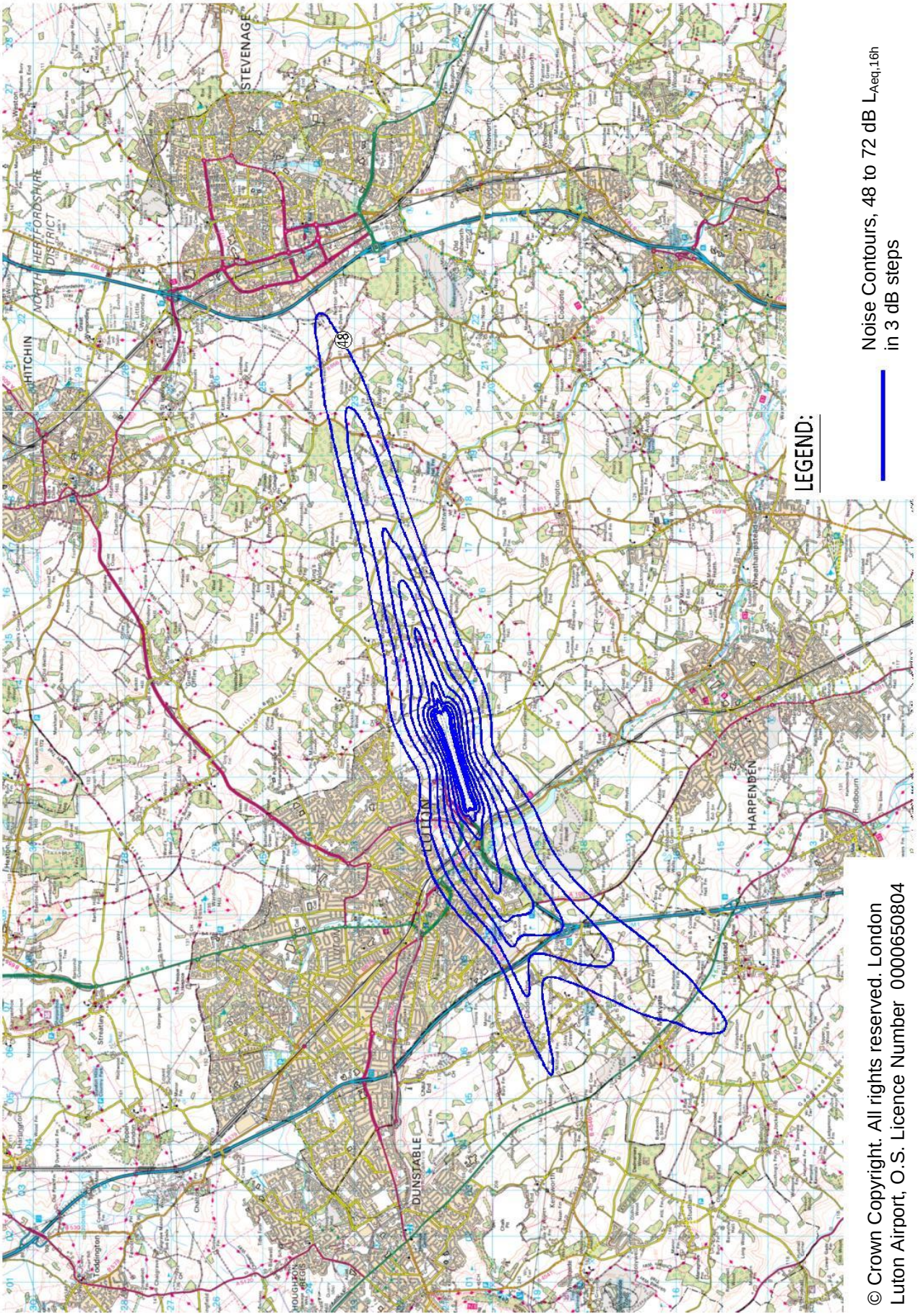




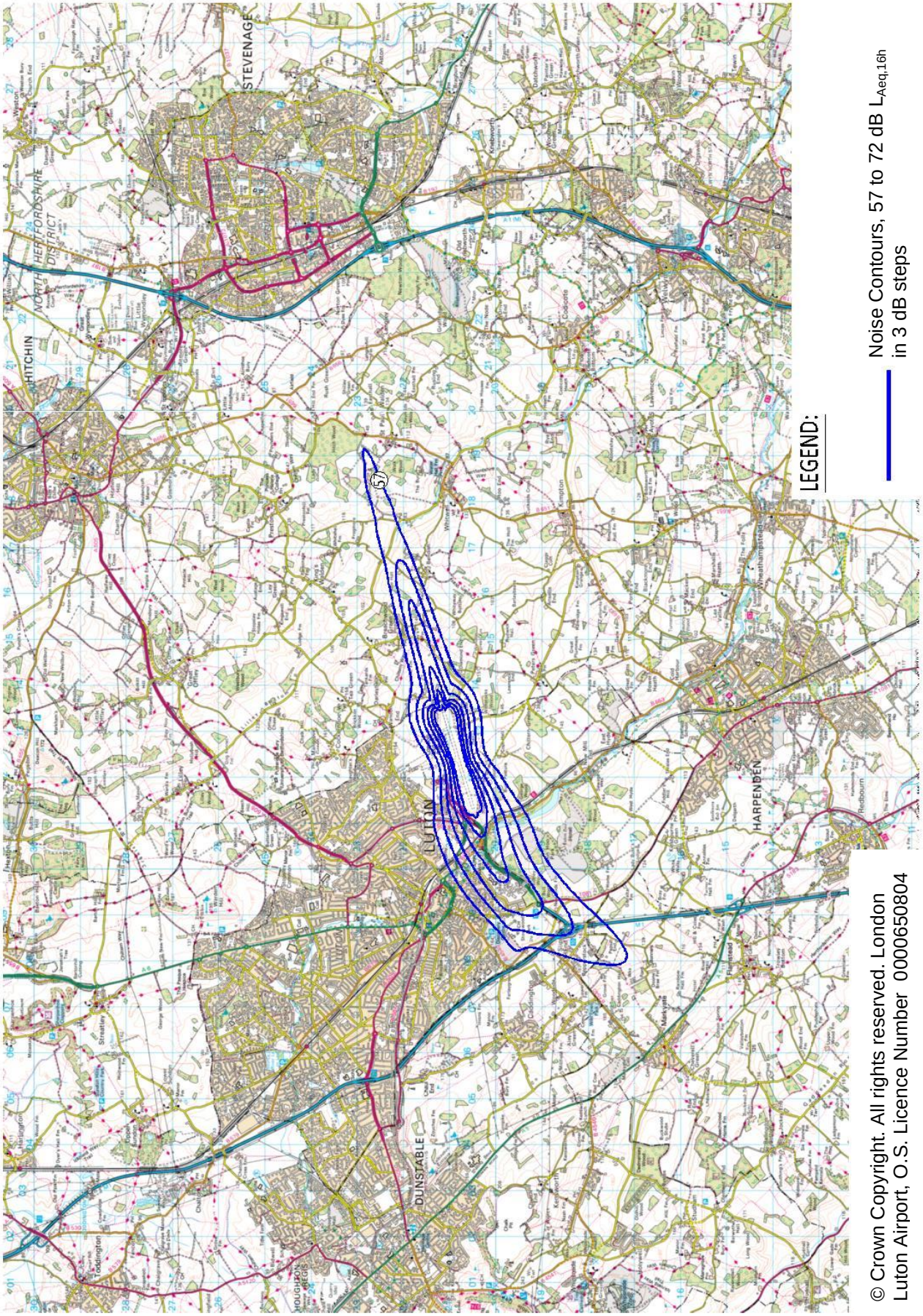
6.8. Annual Day Noise Contours Summer 2013



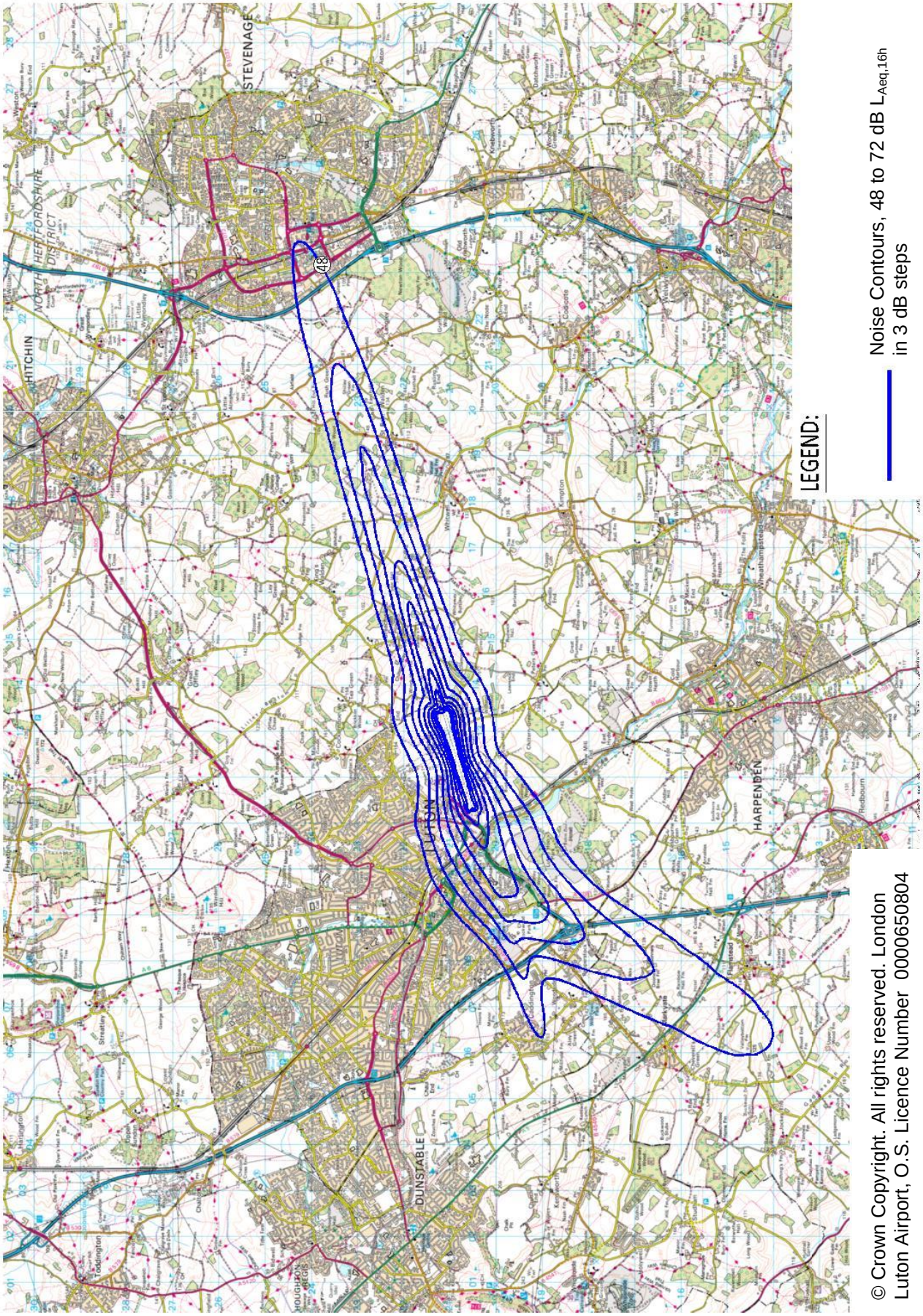
6.9. Annual Night Noise Contours Summer 2013



6.10. Annual Day Noise Contours Summer 2012



6.11. Annual Night Noise Contours Summer 2012



6.12. Annual Noise Contours 2013

Again using the latest INM software (version 7.0d) the annual Lden noise contours for 2013 have been produced in accordance with the Noise Action Plan, which states that from 2013 the airport will "*produce L_{den} noise contours annually, based on an annual average 24 hour period and present to the LLACC (via NTSC).*" The corresponding annual Lnight noise contours have also been produced, along with population and dwelling counts for each contour.

Lden is an A-weighted, Leq noise level, measured for an average 24 hr day between 1st January and 31st December 2013, with a 10 dB penalty added to the level between 23.00 and 07.00 hours and a 5 dB penalty added to the level between 19.00 and 23.00 hours to reflect people's extra sensitivity to noise during the night and the evening.

Lnight is similarly an A-weighted Leq noise level, for an average 8 hour night period between 2300 and 0700 for the period 1st January to 31st December 2013.

6.13. Annual Lden Noise Contour Results 2013

Contour Value (dB(A) L_{den})	Contour Area (km^2)	Population[1]	Dwellings[2]
>75	0.7	0	0
>70	1.6	0	0
>65	5.0	1,100	450
>60	12.4	5,200	1,900
>55	**31.8**	**14,800**	**6,150**

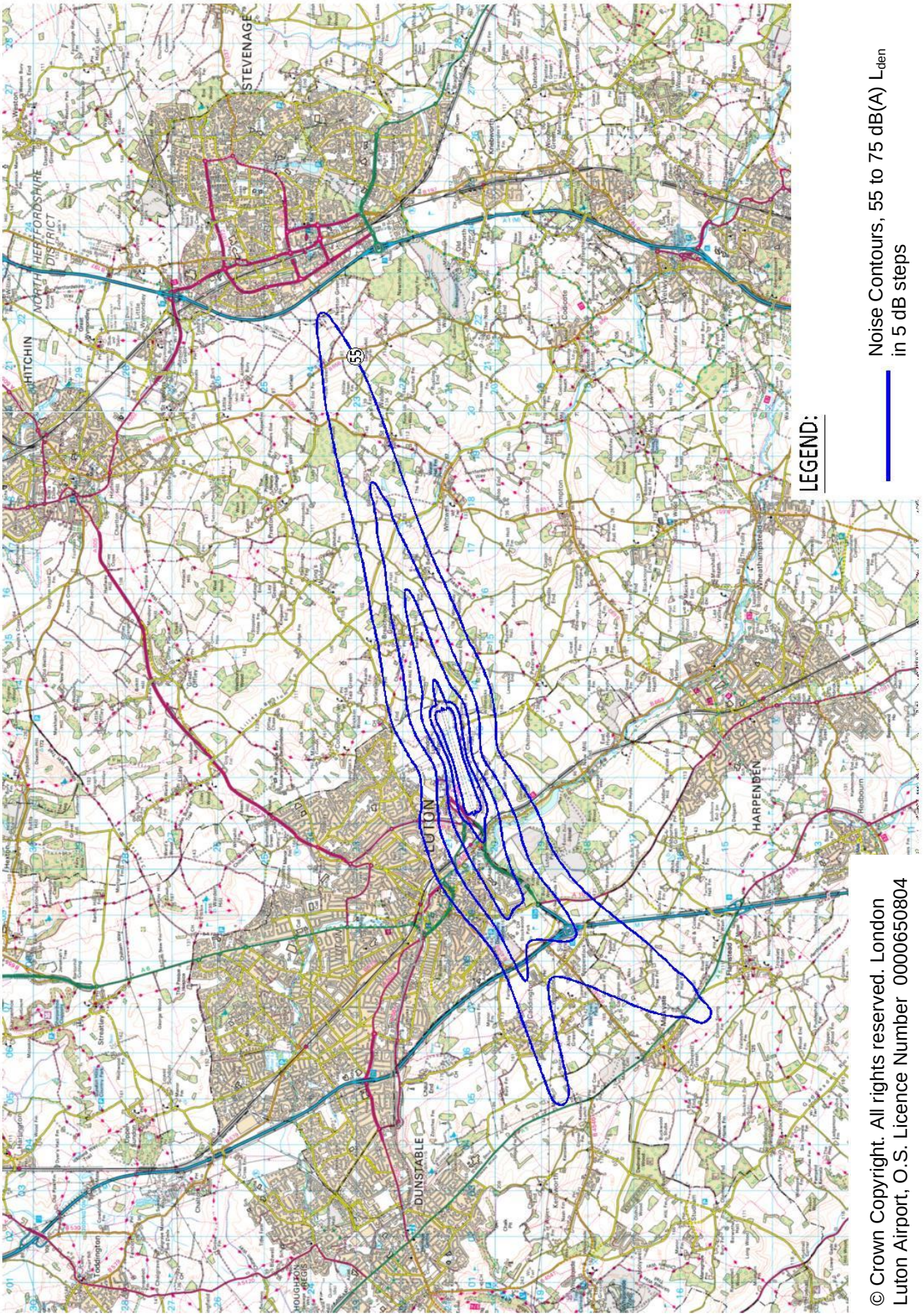
[1] Population counts rounded to the nearest 100
[2] Dwelling counts rounded to the nearest 50

6.14. Annual Lnight Noise Contour Results 2013

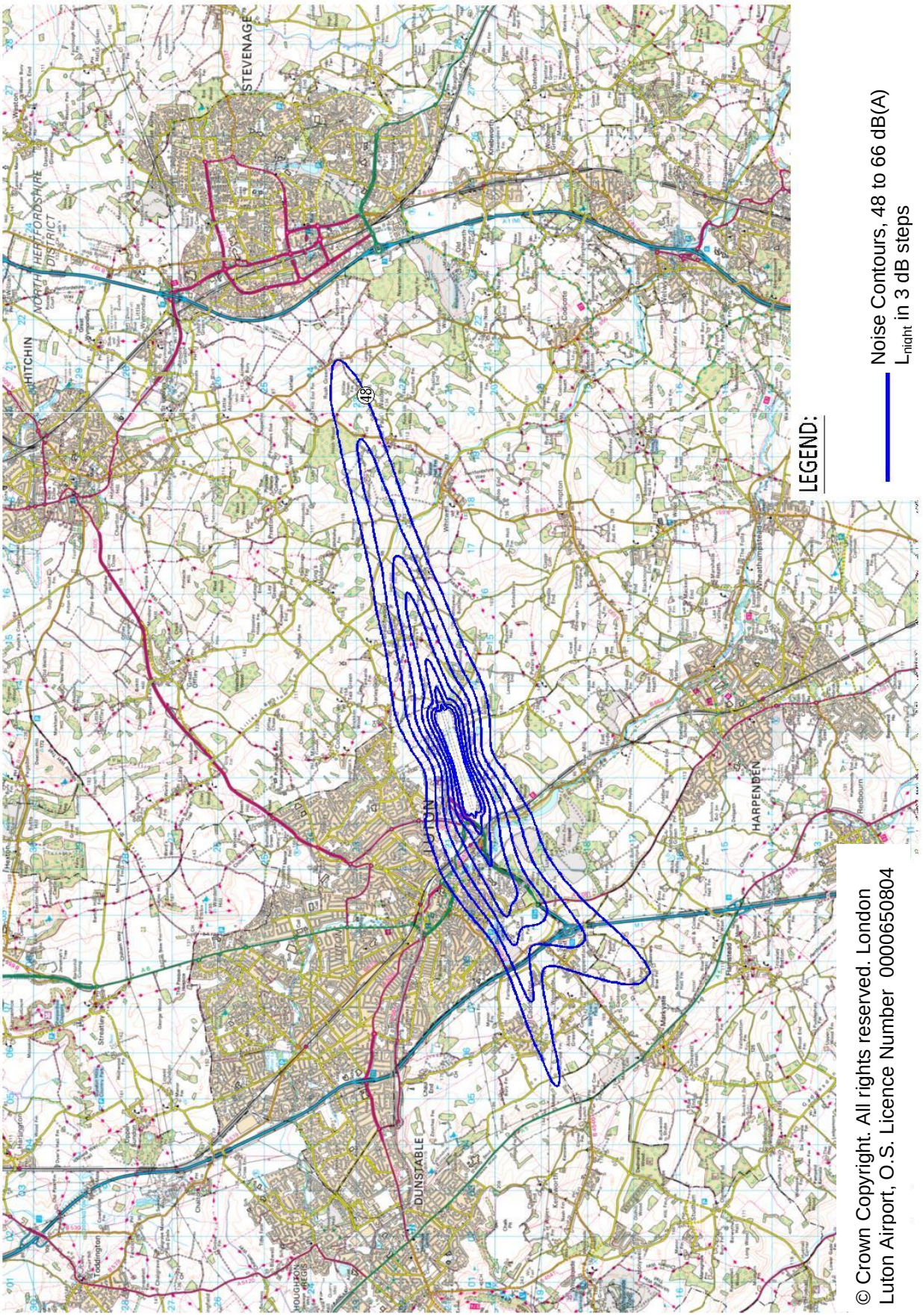
Contour Value (dB(A) L_{night})	Contour Area (km^2)	Population[1]	Dwellings[2]
>66	0.8	0	0
>63	1.2	0	0
>60	2.2	0	0
>57	4.6	800	300
>54	8.1	2,400	900
>51	14.2	6,100	2,350
>48	**24.6**	**11,900**	**4,900**

[1] Population counts rounded to the nearest 100
[2] Dwelling counts rounded to the nearest 50

6.15. Annual Lden Noise Contours 2013



6.16. Annual Lnight Noise Contours 2013



6.17. Quarterly Night Noise Contours

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.

6.18. Night Noise Contour Results (km²)

L_{Aeq}, 8hr Night	Jan – Mar 2012	Jan – Mar 2013	Apr – Jun 2012	Apr – Jun 2013	Jul – Sep 2012	Jul – Sep 2013	Oct - Dec 2012	Oct - Dec 2013
>72	0.2	0.2	0.4	0.4	0.4	0.4	0.3	0.3
>69	0.4	0.4	0.6	0.6	0.6	0.6	0.4	0.4
>66	0.6	0.6	0.9	0.9	1.0	0.9	0.7	0.7
>63	1.0	0.9	1.5	1.4	1.7	1.5	1.1	1.0
>60	1.6	1.5	3.0	2.8	3.6	3.0	1.8	1.8
>57	3.2	3.0	5.9	5.5	6.6	5.9	3.7	3.7
>54	6.2	5.8	10.1	9.5	11.3	10.1	6.8	6.8
>51	10.4	10.1	18.0	16.8	19.7	17.9	11.7	11.7
>48	18.3	17.6	31.2	29.3	35.5	31.6	20.5	20.4
W/E Split (%)	*69/31*	*40/60*	*61/39*	*63/35*	*86/14*	*69/31*	*75/25*	*81/19*

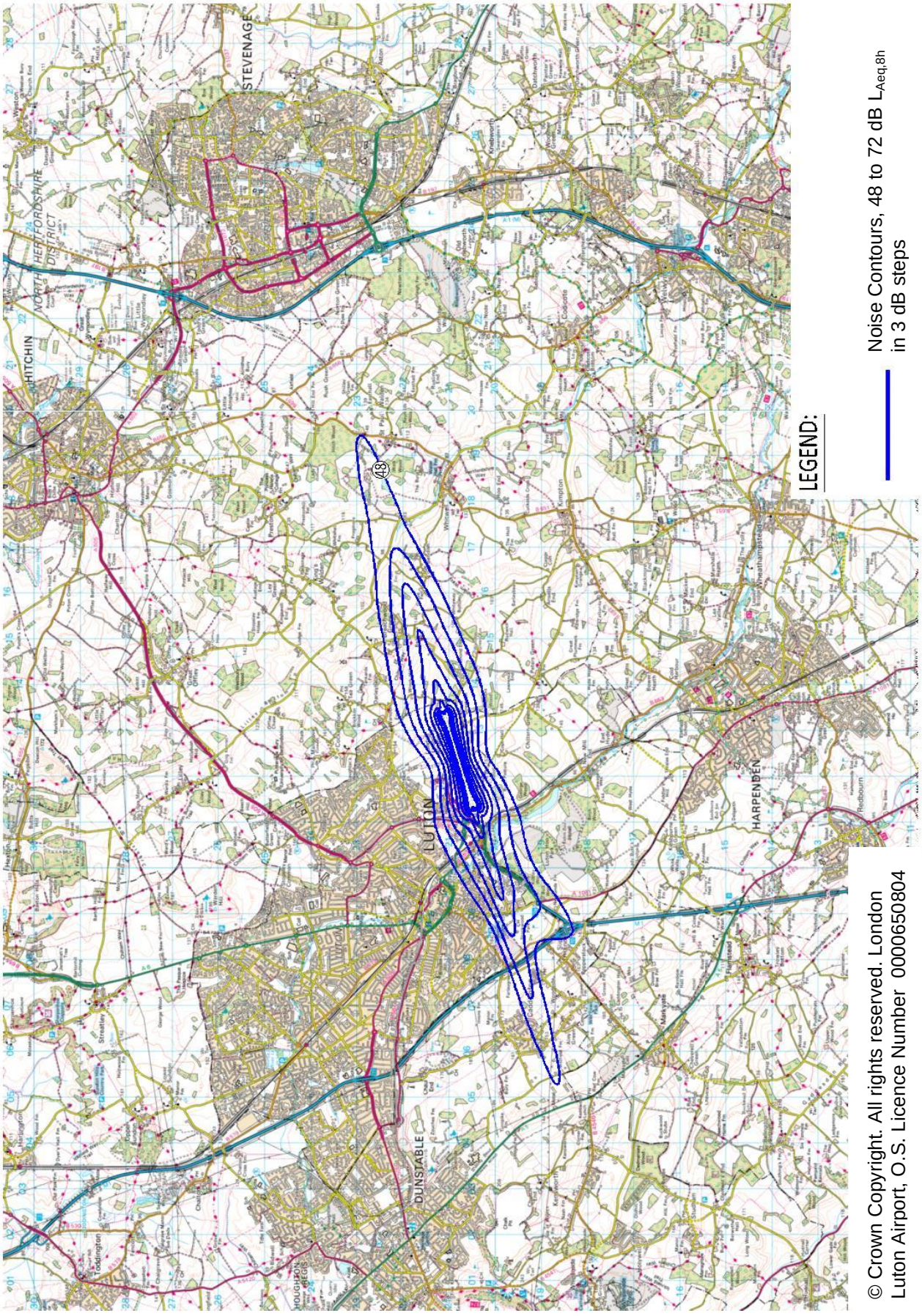
6.19. Night Noise Movements by INM Aircraft Type

At the request of the LLACC the movement numbers in the table below, outlining those aircraft types which were previously grouped in 'other' and which were 10 or more, have been disaggregated. For aircraft types with less than 10 movements in a period or types that were not explicitly presented in previous periods, 'n/a' is shown.

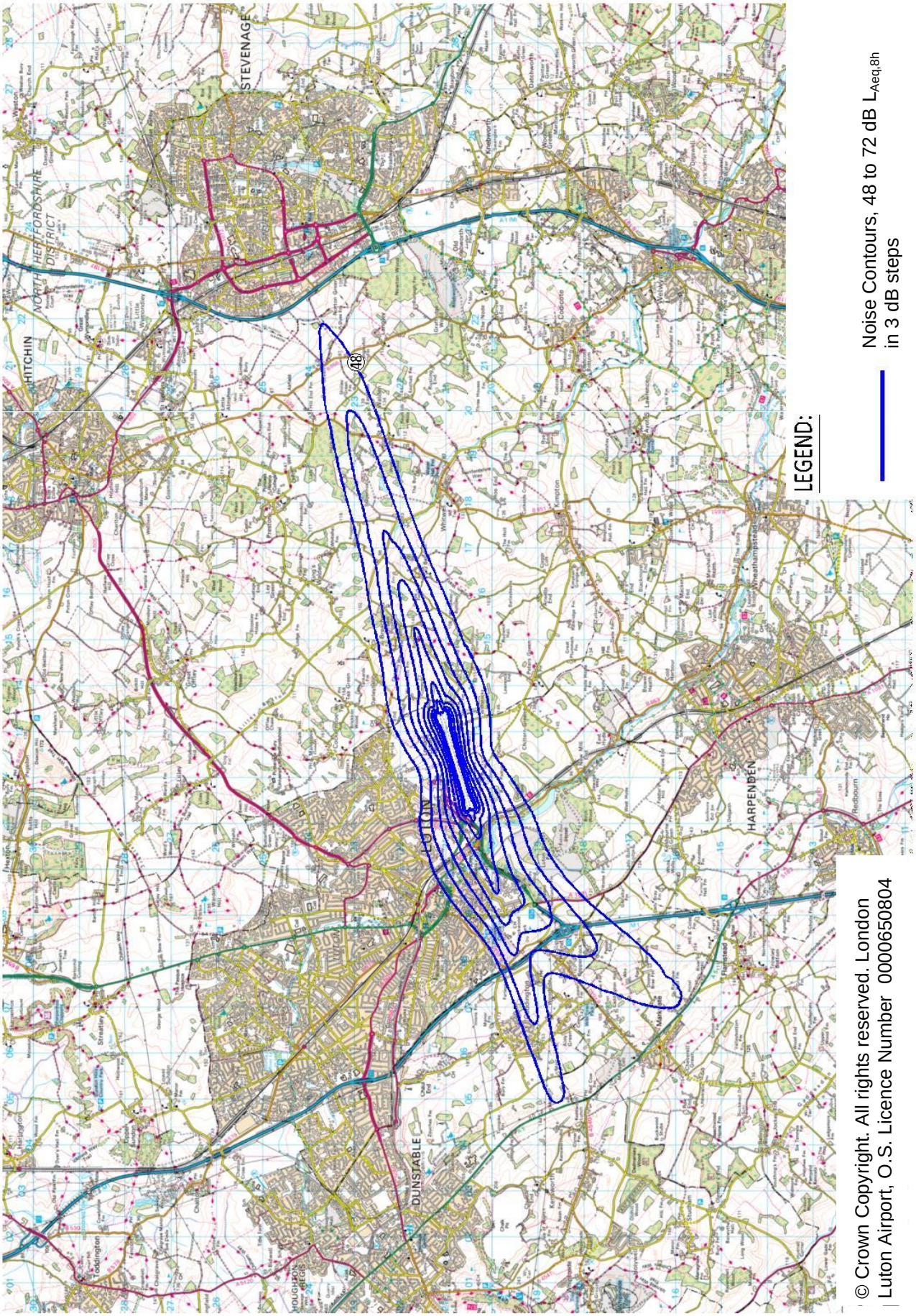
Aircraft Type	Jan – Mar 2012	Jan – Mar 2013	Apr – Jun 2012	Apr – Jun 2013	Jul – Sep 2012	Jul – Sep 2013	Oct – Dec 2012	Oct – Dec 2013
737300	18	n/a	27	n/a	21	n/a	14	42
737400	32	21	100	81	104	97	47	31
737700	12	17	10	13	15	n/a	15	15
737800	209	258	508	605	619	727	347	372
757RR	32	25	92	72	105	100	60	44
A300-622R	29	121	94	97	98	125	97	123
A300B4-203	88	n/a	22	21	19	n/a	10	n/a
A319-131	360	246	950	755	1024	839	364	311
A320-211	352	312	1061	761	1288	786	501	473
A321-232	68	71	147	124	176	175	100	101
A330-301	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15
BAE146	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CL600[1]	73	81	97	110	86	83	25	80
CL601[1]	10	16	22	15	95	18	168	20
CNA441[1]	n/a	17	12	12	n/a	14	13	20
CNA500	n/a	11	22	15	n/a	11	n/a	12
CNA510	n/a	10	18	28	21	10	n/a	20
CNA525C	21	20	41	45	36	41	26	41
CNA55B	n/a	11	n/a	n/a	28	n/a	23	11
CNA560XL	27	43	46	46	39	39	47	50
CNA680	n/a	n/a	n/a	12	n/a	n/a	11	n/a
CNA750	n/a	n/a	n/a	10	n/a	n/a	n/a	n/a
DO328[1]	132	133	131	141	137	137	132	133
EMB145	18	19	41	61	32	46	39	54
F10062	62	39	24	62	35	46	22	42
GIV	69	52	88	79	74	84	61	66
GV[1]	158	188	180	211	93	171	105	212
IA1125	n/a	10	n/a	15	15	n/a	11	n/a
LEAR35[1]	38	45	90	70	26	42	68	45
Other	63	54	44	42	134	80	51	64
Total	**1871**	**1820**	**3877**	**3503**	**4320**	**3671**	**2357**	**2397**

[1] In the 2012 AMR, some or all of these movements were shown against alternative INM aircraft types, due in part to use of an earlier version of the INM software. For example the majority of the 2013 movements against the DO328 were modelled for 2012 using the BAEATP.

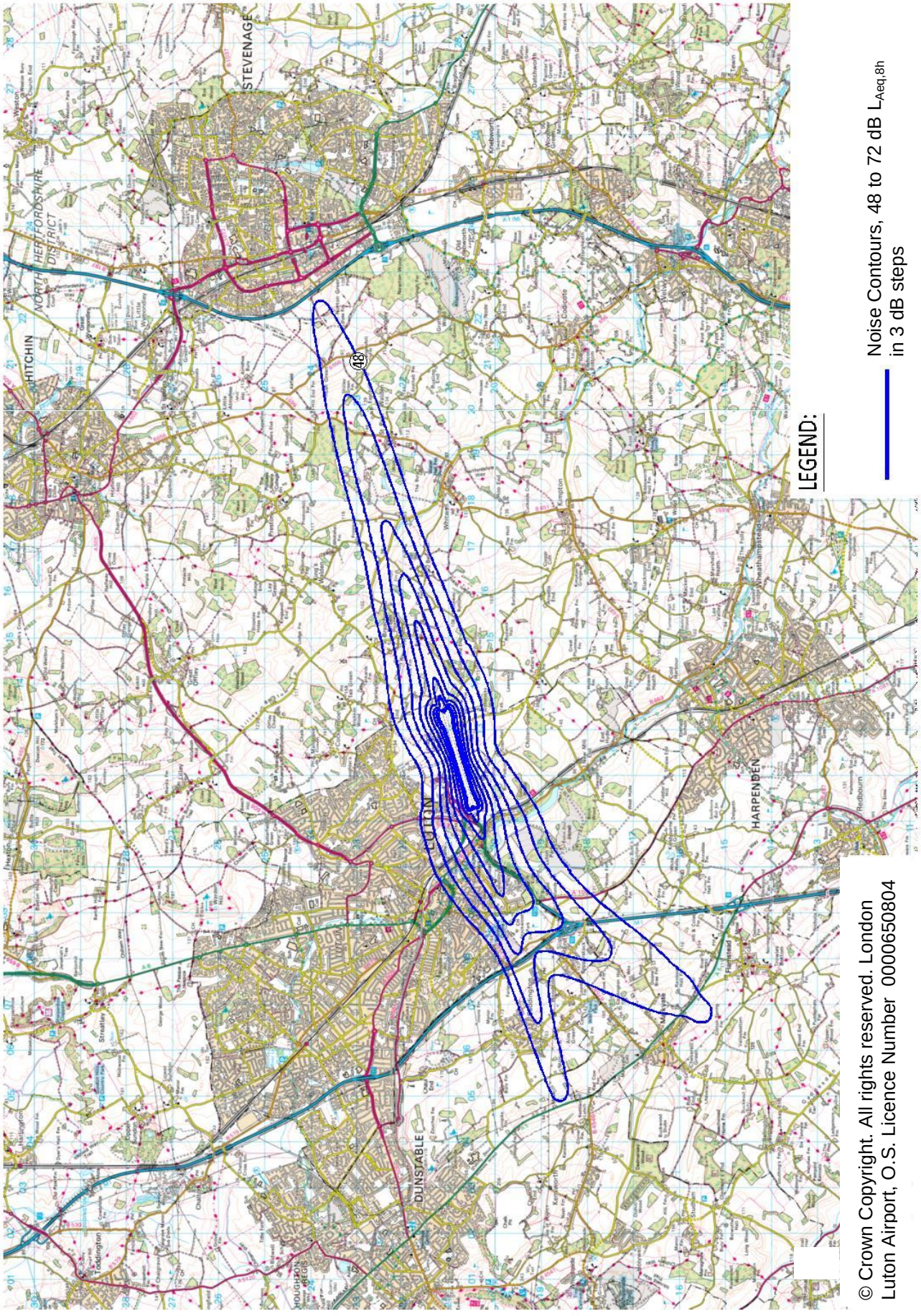
6.20. Quarterly Night Noise Contours 2013 Jan – Mar



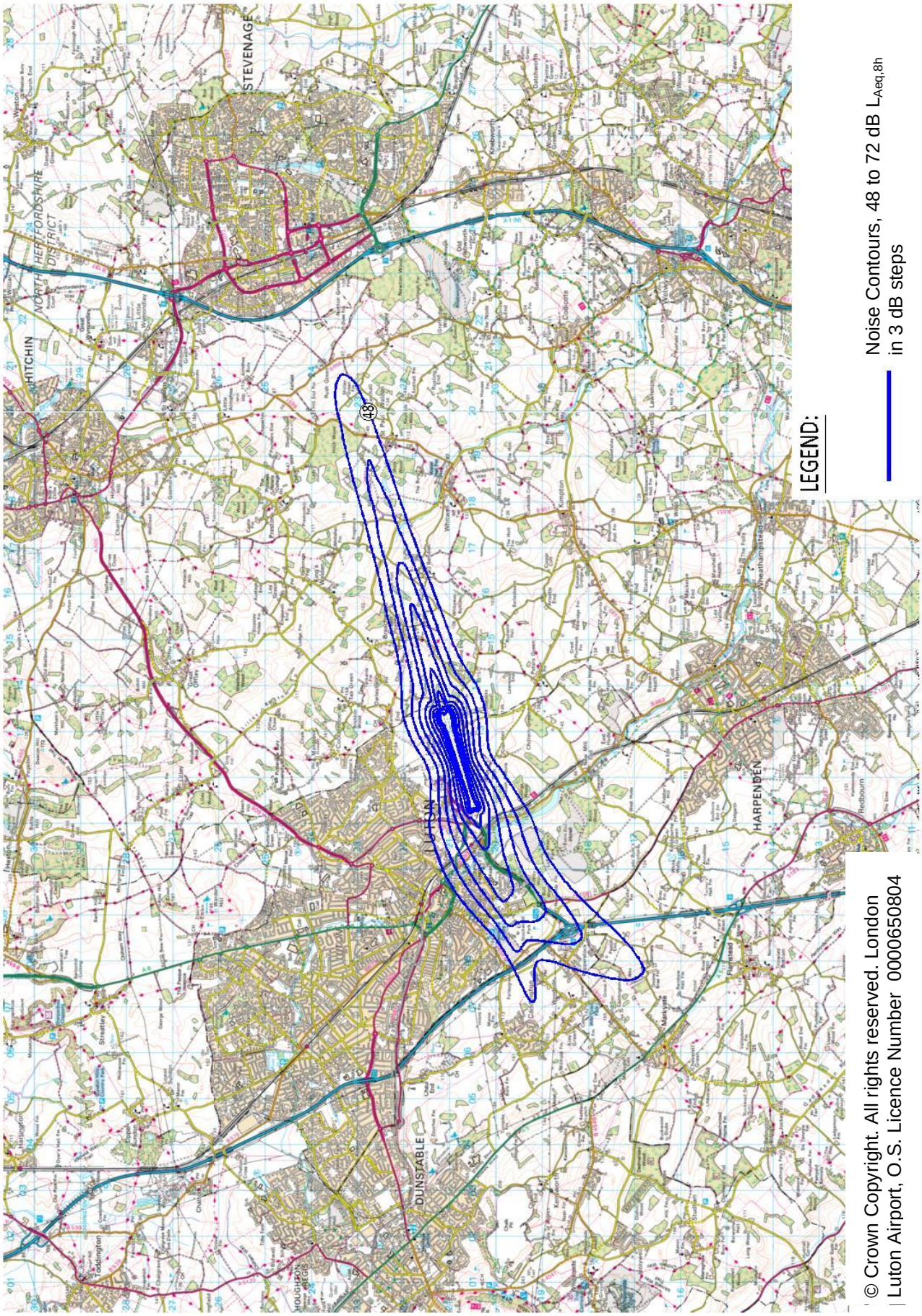
6.21. Quarterly Night Noise Contours 2013 Apr – Jun



6.22. Quarterly Night Noise Contours 2013 Jul – Sep



6.23. Quarterly Night Noise Contours 2013 Oct – Dec



7. *Noise Action Plan*

The table below provides an update on the actions in the Noise Action Plan. Those actions highlighted in orange have been deferred from the original date in the published Noise Action Plan, whilst those in green have been actioned during 2013.

	Action	Noise problem	Timescale
1	Operate and maintain a noise and track-keeping system to monitor aircraft operations, reporting statistics quarterly to the LLACC (via NTSC)	A-F	Ongoing
2	Produce L_{den} noise contours annually, based on an annual average 24 hour period and present to LLACC (via NTSC)	A-F	2013 (Actioned)
3	Undertake regular analysis of aircraft activity and noise to identify where a review of procedures may help minimise disturbance	A-F	Ongoing
4	Monitor % compliance of Continuous Descent Approaches (CDA) both day and night, reporting quarterly to the LLACC (via NTSC)	A, C, D	Ongoing
5	Undertake community visits with a portable handheld noise monitoring device, on request	A-F	Ongoing
6	Acquire a new 'permanent' mobile noise monitor which can be left in community locations for extended periods to measure aircraft noise and compare with published noise contours	A-F	2011 (Actioned)
7	Present quarterly night contours to the LLACC (via NTSC)	A-F	Ongoing
8	Investigate, log and respond to all complaints relating to London Luton Airport aircraft activity, reporting in-depth statistics quarterly to the LLACC (via NTSC)	A-F	Ongoing
9	Quarterly Airfield Environment Office Reports to be available to view on the London Luton Airport website as well as the LLACC website	N/A	Ongoing
10	Monitor helicopter operations to/from London Luton Airport to ensure they avoid, where possible, the most densely populated areas	C	Ongoing
11	Calibrate noise and track-keeping system and INM noise contour model on an annual basis	N/A	Ongoing
12	Monitor the track-keeping compliance and follow up with operators, as necessary	C	Ongoing
13	Monitor the number of marginally compliant Chapter 3 aircraft (approximately 10% of total movements during 2009)	B	Ongoing
14	Monitor and report progress against Noise Action Plan actions to the LLACC (via NTSC), providing statistics annually in the Annual Monitoring Report	A-G	2013 (Actioned)
15	Review the voluntary Night Noise Policy at least every five years, in consultation with the LLACC (via NTSC)	A-D	2015
16	Encourage daytime operations through higher landing fees at night	A, B	Ongoing
17	Fine any departing aircraft exceeding noise limits, to encourage airlines to operate the quietest aircraft types, (82dB(A) at night and 94dB(A) during the daytime)	A, B	Ongoing
18	Discourage residential development close to the airport boundary or areas affected by aircraft noise, in liaison with Local Authorities.	A-F	Ongoing
19	Review the current Night Noise Policy	A-D	2010 (Actioned)
20	Divert all noise violation limit penalties from airport operations to support the noise management programme and Community Trust Fund	A-G	Ongoing
21	Regular liaison with airline operators via a 'Flight Ops' Committee to ensure adherence to existing standard procedures and encourage innovation	A-F	Ongoing
22	Review operational procedures in relation to noise with support of the 'Flight Ops' committee and NTSC	A-F	Ongoing
23	Work with operators to encourage the voluntary phase out of noisiest aircraft	A, B, D, E, F	Ongoing
24	Continue to review procedures for helicopter operations with the support of air traffic control	C	Ongoing

25	Work with operators on the voluntary phase out of marginally compliant Chapter 3 high aircraft i.e. hushkitted aircraft	A, B, D, E, F	2014
26	Explore with the 'Flight Ops' Committee/NTSC penalties for flying off track after the introduction of RNAV-1 departure routes	C	2014
27	Work with airlines, air traffic control, NATS and other stakeholders to introduce new technologies and environmental improvements	A-F	Ongoing
28	Review the Engine Ground Running policy to minimise disturbance during the night and late in the evening	A	2013 (Actioned)
29	Undertake a review of day noise violation limits, in conjunction with the 'Flight Ops' Committee/NTSC	B	Ongoing
30	Implement a noise insulation scheme for non-residential noise sensitive buildings	G	2013 (Actioned)
31	Implement a new departure code of practice to minimise noise impact	A, C, F	2011 (Actioned)
32	Operate within existing planning limits	A-F	Ongoing
33	Actively participate and support the work of the industry and Airport Operators Association with respect to its 'Sustainable Aviation' programme	N/A	Ongoing
34	Liaise with London Heathrow and other airports with respect to non-London Luton overflying traffic, where necessary	C, D, E, F	Ongoing
35	Work with the LLACC (via NTSC), the 'Flight Ops' committee and NATS to identify airspace improvements which may enhance the noise environment	A-F	Ongoing
36	Agree key performance indicators and targets for noise 'actions', where appropriate, with the LLACC (via NTSC)	A-G	2012 (Actioned)
37	Set a target for day and night CDA compliance with air traffic control	A-D	2012 (Actioned)
38	Assess the impact of London Luton Airport traffic on the Chilterns AONB and explore potential for operational improvements	E	Ongoing
39	Lower the night noise violation limit	A-F	2010 (Actioned)
40	Attend public meetings on request, where appropriate, to discuss the airport's operation	N/A	Ongoing
41	Provide an information pack to first time complainants and those wishing to relocate into the area	N/A	Ongoing
42	Formally engage with air traffic control and airline/other operators to help improve noise management/track keeping	N/A	Ongoing
43	Host visits from local residents and MPs to discuss community concerns and to demonstrate the Noise and Track-Keeping system	N/A	Ongoing
44	Prepare an Annual Monitoring Report, in conjunction with Luton Borough Council, incorporating detailed statistics on all aspects of the airport's operations	N/A	Ongoing
45	Review format of the Annual Monitoring Report to incorporate Noise Action Plan progress	N/A	2013 (Actioned)
46	Establish a committee with Environmental Health Officers of Local Authorities (Herts, Beds and Bucks) to discuss the impact of the airport's operations and the Noise Action Plan	N/A	2014
47	Continue to offer email, telephone and website as options for complaints and enquiries	N/A	Ongoing
48	Review our noise complaint handling system and consider follow up surveys in conjunction with the LLACC (via NTSC)	N/A	2013 (Actioned)
49	Invite members of the public to visit the Environment Office to review noise and track information	N/A	Ongoing
50	Engage effectively with the LLACC and NTSC	N/A	Ongoing
51	Engage with local planning authorities to ensure they are informed about noise matters	N/A	Ongoing
52	Review communication material, the noise information pack and the London Luton Airport website with respect to noise/noise management	N/A	2013 (Actioned)
53	Hold community surgeries to give local people an opportunity to discuss issues in person with representatives from the Community Relations and Environment Department	N/A	2014

54	Introduce a web-based noise and track system for public access on the London Luton Airport website	N/A	2012 (Actioned)
55	Improve communication with transient and non-based operators/users to ensure environmental and operational procedures are understood and adhered to	A-F	2011 (Actioned)

***Noise Problem**: A - Night operations; B – Noisier aircraft; C – Track-keeping; D – Arriving aircraft; E – Preservation of quiet areas; F – Westerly departures; G – Mitigation and compensation.*

Actioned during 2013

Action 2: L_{den} noise contours for 2013 have been produced and published in this AMR.

Action 13: Marginally compliant Chapter 3 aircraft are monitored through Topsonic, the noise and track keeping system.

Action 14: Progress against the NAP actions have been published in this AMR.

Action 23: Voluntary phase-out of the noisiest aircraft is encouraged through the Noise Violation Limits, and through discussions at the Flight Opeations Committee (FLOPC). This will also form part of the Noise Control Scheme required to be submitted to the council as part of the planning conditions.

Action 28: The Engine Ground Running policy was last revised in 2010 as part of the night noise policy. A subsequent review in 2013 concluded that the policy is currently fit for purpose, however a further review will be undertaken as part of the development of the Noise Control Scheme required to be submitted to the council as part of the planning conditions.

Action 29: Daytime noise violation limits have been reviewed as part of the planning application, and a progressive reduction will be implemented in line with the planning conditions.

Action 30: A noise insulation scheme was implemented for non-residential properties, whereby acoustic insulation was offered to any noise sensitive properties such as schools and hospitals exposed to noise levels ≥63 dB $L_{Aeq,}$ as recommended in the guidance in the 2003 Aviation White Paper. Cutenhoe Learning and Community Village was identified as the only property that met the criteria. A noise assessment was undertaken and acoustic insulation subsequently installed.

Action 34: Liaison occurs between Heathrow and other London airports regarding noise issues such as overflights and complaints.

Action 38: The impact of aircraft over the Chilterns is continually assessed as part of LLAOL's quarterly and annual contour and complaints analysis. Furthermore the impact of a potential Airspace Change Proposal on the Chilterns has been assessed along the Runway 26 Brookmans Park departure route as part of the RNAV1 trials. Similar assessments will be undertaken as further improvements in navigation technologies are considered along other departure routes.

Action 45: Progress against the NAP actions have been published in this AMR.

Action 48: LLAOL's noise complaints handling system has been reviewed, and procedures written as part of the development of LLAOL's Environmental Management System.

Action 52: The website has been reviewed, out-dated contents removed and new information uploaded.

Postponed during 2013

Action 25: LLAOL will work with operators to encourage phase out of marginally compliant Chapter 3 high aircraft as part of the Noise Control Scheme to be submitted to the council as part of the planning conditions.

Action 26: This has been postponed due to the fact that RNAV-1 has not yet been introduced on any of the routes out of London Luton Airport. An RNAV-1 trial was undertaken on the Clacton/Dover/Detling Runway 26 departures during 2013, and an Airspace Change Proposal is anticipated to go to consultation at the beginning of 2014.

Action 46: The action to establish a committee with Environmental Health Officers of Local Authorities (Herts, Beds and Bucks) to discuss the impact of the airport's operations and the Noise Action Plan was postponed until 2014.

Action 53: Community surgeries were postponed until 2014.

8. Complaints

8.1. Total Complaints relating to LLA aircraft operations

	2012	2013
Total No. of Complaints relating to LLA aircraft operations	938	1,022
No. of Complainants	355	379
No. of Events (eliciting a complaint)	3,079 (1,594*)	2,164 (1,606**)
Average No. of Complaints per Complainant	*2.6*	*2.7*
Average No. of Events per Complainant	*8.7 (4.5*)*	*5.7 (4.2**)*
Average No. of Events per Complaint	*3.3 (1.7*)*	*2.1 (1.6**)*
No. of Aircraft Movements per Complaint	*105*	*96*
No. of Aircraft Movements per Event	*32 (62*)*	*45 (61**)*

** Figures excluding 1,485 events reported by four individuals, two residents in Harpenden and two individuals from the same household in Redbourn.*
*** Figures excluding 558 events reported by just one resident of Harpenden.*

During 2013 a total of 1,022*** complaints (on average 3 complaints per 24 hours) relating to LLA aircraft operations were received by the Airfield Environment Office, compared with 938 in 2012.

A further 72 complaints (90 events) not attributable to LLA traffic were received throughout 2013 compared with 75 (190 events) last year. 24 of these complaints (33%) related to non-LLA helicopters operating to/from other airfields.

A total of 379 individuals reported concerns to the Airfield Environment Office during the year, in comparison to 355 in 2012. Statistics identify that 152 individuals (40%) were reporting concerns for the first time and that 256 of the complainants (68%) contacted the airport only once during the year.

**** It should be noted that RNAV1 trials, incorporating a number of operators following a revised departure flight route on the 26 Clacton/Dover heading, was underway between 6th March and 22nd June 2013. Following a number of Stakeholder Engagement Briefings, liaison with the LLACC and details published in a newsletter on the airport website, local residents were encouraged to provide feedback (both positive or negative) on any perceived change in flight patterns and/or noise during the duration of the trial. Due to heightened awareness in local communities, approximately 30% of all complaints received during the trial period reported specific disturbance from aircraft following the 26 Clacton/Dover flight route (a combination of aircraft following RNAV1 trial procedures and operators flying non-trial procedures).*

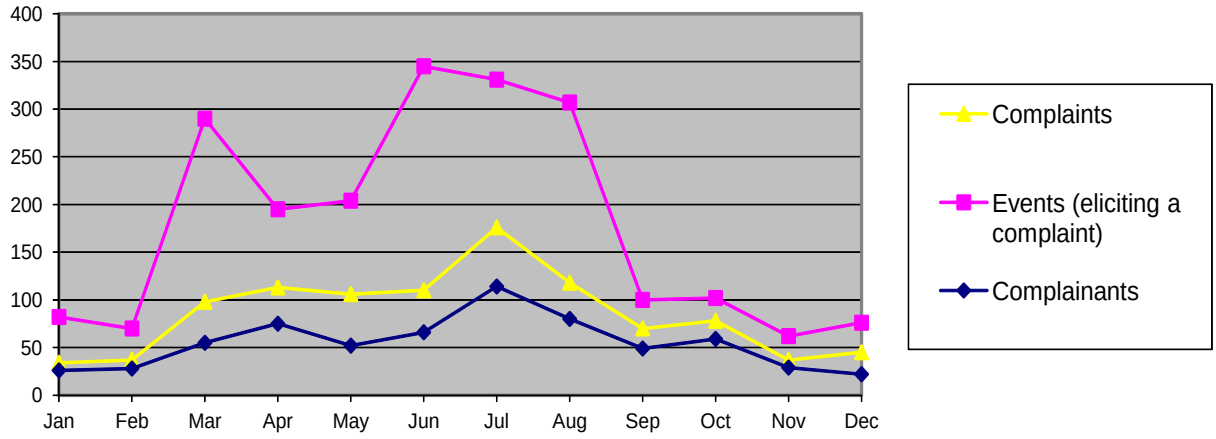
Within the 1,022 complaints received during 2013, a total of 2,164 events (eliciting a complaint) were listed, compared to 3,079 events in 2012. However, it should be noted that 558 events this year (26%) were reported by just one individual in Harpenden.

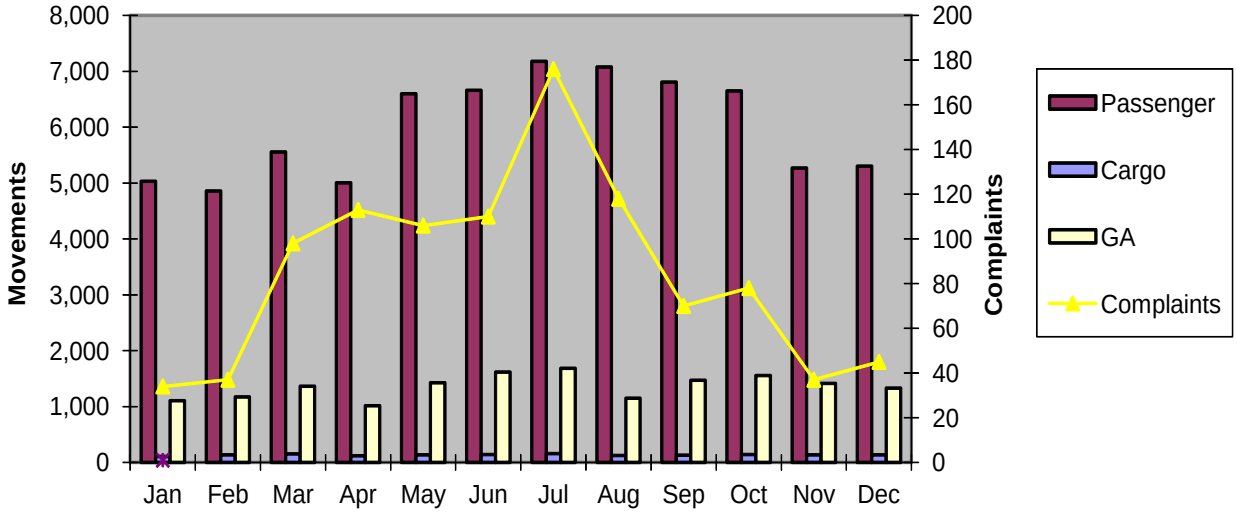
During 2013 a further 810 events were reported by one other individual in Harpenden but, in agreement with the LLACC, these events are no longer included in statistics although a total of 33 complaints from this complainant, reporting general disturbance and frequency (both day and night), have been incorporated in all statistics.

8.2. Monthly complaint statistics

	Complaints	Events (eliciting a complaint)	Complainants
Jan	34	82	26
Feb	37	70	28
Mar	98	290	55
Apr	113	195	75
May	106	204	52
Jun	110	345	66
Jul	176	331	114
Aug	118	307	80
Sep	70	100	49
Oct	78	102	59
Nov	37	62	29
Dec	45	76	22
Totals	**1,022**	**2,164**	**379***

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





8.3. 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	584	276	97	**957**
Off Track	272	39	10	**321**
Low-Flying	166	36	13	**215**
Frequency	101	20	36	**157**
Air Quality	2	0	0	**2**
Safety	2	0	0	**2**

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.*

8.4. Areas of Reported Concerns

Reported Concerns	No. of Complaints	% of Total Complaints
Departures - Westerly	442	43.2%
Departures - Easterly	196	19.2%
Arrivals - Easterly	214	20.9%
Frequency/Gen. Distrubance	74	7.2%
Arrivals - Westerly	28	2.7%
Go - Arounds	39	3.8%
Ground Noise	5	0.5%
Positioning Flights	3	0.3%
Helicopters	9	0.9%
Engine Ground Runs	7	0.7%
Air Quality	2	0.2%
Total	**1,022**	**100%**

During the year 163 individuals reported a total of 374 complaints concerning night noise disturbance from LLA operations (on average one complaint per night). This amounts to 37% of all complaints received in 2013, compared to 286 night noise complaints during 2012 (from 144 individuals). It should be noted that 26% of the reported night disturbance reports during 2013 originated from just three individuals, one in Harpenden, one in Hemel Hempstead and one in Kensworth. A further 20 complaints reported disturbance relating to overflights to or from other airports during the night period.

Within the 442 complaints concerning westerly departures 108 were of a general nature, 293 to specific aircraft following the Clacton/Dover/Detling route, 16 to aircraft on the Compton route and 19 following the Olney heading. Six other complaints involved positioning flights following off-airways flight routes.

Of the 196 complaints attributed to easterly departures 26 were of a general nature, 130 to specific aircraft following the Compton heading, 27 to aircraft on the Olney flight route and 4 to aircraft on the Clacton/Dover/Detling heading. A further 9 complaints involved positioning flights following off-airways flight routes.

Whilst 135 of the 214 complaints concerning easterly arrivals reported general disturbance, 79 related specifically to aircraft on approach to land from the Lorel Reporting Point.

8.5. Nature of Disturbance

Noise was cited as a main disturbance in 94% of complaints and 31% of complaints involved aircraft being perceived as off-track. Concerns of aircraft flying low were reported in 21% of complaints and in 15% of complaints the frequency of operations was reported. It should be noted that complaints received may relate to more than one type of disturbance (i.e. noisy, low and off-track).

Of the 1,022 complaints relating to LLA aircraft operations registered during the year 746 complaints (73%) were clearly correlated to a specific aircraft type although many complaints were of a general nature.

8.6. 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**
A320/A321 (Monarch/Wizz Air/easyJet/GA)	151	14.8%	27,920	185
A319 (easyJet)	123	12.0%	26,332	214
A306 (MNG Cargo)	111	10.9%	1,133	10
B737-800 (Ryanair/Thomsonfly/EL Al/GA)	82	8.0%	11,410	139
B737-400 (MNG Cargo/Blue Air/GA)	60	5.9%	958	16
A30B (MNG Cargo/DHL)	29	2.8%	34	1
ATP (Atlantic Airlines)	27	2.6%	616	23
GLF4/GLF5 (GA)	20	2.0%	4,990	250
B767 (El Al/Thomsonfly/GA)	16	1.6%	236	15
Global Express (GA)	15	1.5%	2,228	149
MD82/83 (Blue Air)	11	1.1%	40	4
B757 (Thomson/Monarch/DHL/GA)	18	1.8%	864	48
Helicopter	9	0.9%	498	55
B737-200 (GA)	5	0.5%	56	11
GLF2/GLF3 (GA)	5	0.5%	60	12
Other Private Aircraft	*53*	5.2%	*20,026*	378
Other Passenger Operations	*9*	0.9%	*194*	22
Other Cargo Operations	*2*	0.2%	*20*	10
Total	**746**	**73.0%**	**97,615**	**131**

* 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. 97,615 movements / 746 correlated complaints = 131

8.7. Origin of Complaints

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

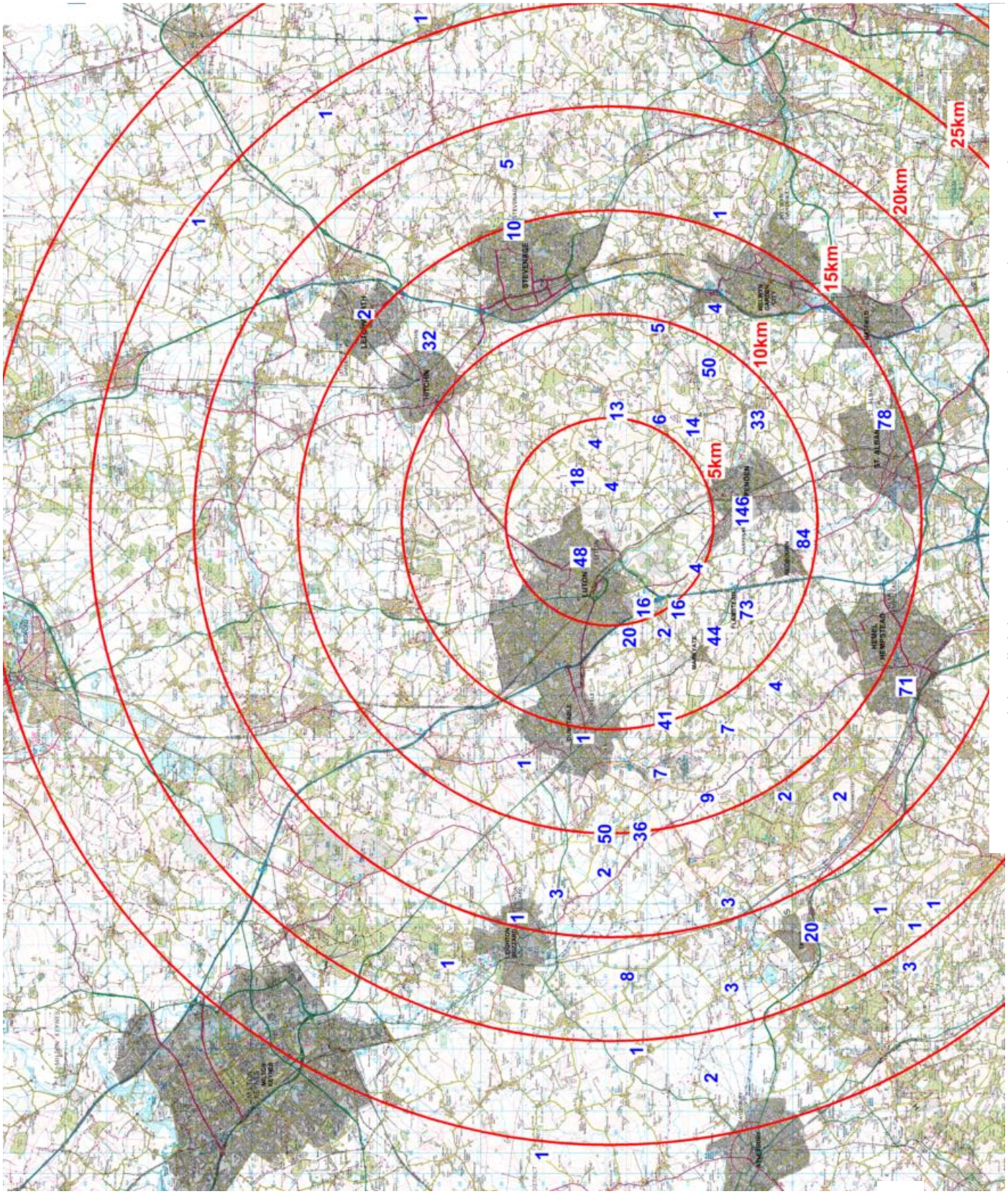
Location	Complaints	Events* (eliciting a complaint)	Complainants	*Average complaints per complainant*	*Average Events per Complainant*
Ashwell	1	0	1	*1*	*0*
Ayot St Lawrence	50	36	4	*12.5*	*9*
Bellingdon	1	1	1	*1*	*1*
Bendish	4	6	1	*4*	*6*
Berkhamsted	2	0	1	*2*	*0*
Blackmore End	14	16	5	*2.8*	*3.2*
Breachwood Green	18	18	9	*2*	*9*
Buckland Common	1	1	1	*1*	*1*
Buntingford	1	0	1	*1*	*0*
Caddington	20	20	15	*1.3*	*1.3*
Cholesbury	1	1	1	*1*	*1*
Codicote	5	6	4	*1.3*	*1.5*
Dagnall	9	8	4	*2.3*	*2*
Diamond End	4	4	2	*2*	*2*
Dunstable	1	1	1	*1*	*1*
Dunton	1	6	1	*1*	*6*
Eaton Bray	50	113	24	*2*	*4.7*
Edlesborough	36	59	22	*1.6*	*2.7*
Flamstead	73	167	21	*3.5*	*8*
Gaddesden Row	4	1	4	*1*	*0.3*
Great Billington	3	1	1	*3*	*1*
Gubblecote	3	35	1	*3*	*35*
Gustard Wood	5	8	2	*2.5*	*4*
Harpenden	146	744	38	*3.8*	*20*
Heath and Reach	1	2	1	*1*	*2*
Hemel Hempstead	71	102	8	*8.9*	*12.8*
Hitchin	32	52	3	*10.7*	*17.3*
Houghton Regis	1	1	1	*1*	*1*
Hulcott	2	1	1	*2*	*1*
Kensworth	41	93	11	*3.7*	*8.5*
Kimpton	6	5	6	*1*	*0.8*
Kinsbourne Green	4	4	4	*1*	*1*
Leighton Buzzard	1	1	1	*1*	*1*
Letchworth	2	5	2	*1*	*2.5*
Little Gaddesden	2	2	2	*1*	*1*
Luton	48	61	30	*1.6*	*2*
Markyate	44	39	18	*2.4*	*2.2*
Mentmore	8	53	1	*8*	*53*
Northall	2	1	2	*1*	*0.5*
Pepperstock	16	38	5	*3.2*	*7.6*
Pitstone	3	1	2	*1.5*	*0.5*
Redbourn	84	94	25	*3.7*	*3.8*
Sandon	1	0	1	*1*	*0*
Slip End	16	16	6	*2.7*	*2.7*
St Albans	78	150	29	*2.7*	*5.2*
St Leonards	3	3	3	*1*	*1*
Stevenage	10	24	9	*1.1*	*2.7*
Studham	7	2	6	*1.2*	*0.3*
Tewin Wood	1	2	1	*1*	*2*
Tring	20	104	4	*5*	*26*
Walkern	5	2	4	*1.3*	*0.5*
Welwyn	4	7	3	*1.3*	*2.3*
Wheathampstead	33	28	11	*3*	*2.5*
Whipsnade	7	9	2	*3.5*	*4.5*
Whitwell	13	8	5	*2.6*	*1.6*
Wingrave	1	0	1	*1*	*0*
Woodside	2	2	2	*1*	*1*
Totals	**1,022**	**2,164 (1,606 **)**	**379**	***2.7***	***5.7 (4.2**)***

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

** Figures excluding 558 events reported by just one resident in Harpenden.

Furthermore one individual in Harpenden has continued to report a large number of events throughout the year. Whilst these events are no longer included in statistics (in agreement with the LLACC) the complaints received from this individual (reporting general disturbance and frequency) are still included in the complaints total and this individual is included in the complainants total.

8.8. Location of Complaints 2013



8.9. Method of Complaint Receipt

How Received	% of Total Complaints
E-mail	73%
Telephone	26.5%
Letter	0.5%

Any concerns relating to aircraft operations associated with London Luton Airport 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 email*: noise@ltn.aero

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

8.10. Community Relations

RNAV1 Trials

Following on from the easyJet flight trial in 2011 to help find a way to improve track-keeping on the 26 Clacton/Dover/Detling flight route, discussions continued with the CAA-Directorate of Airspace Policy (DAP), to agree the best way forward regarding the design of a new route structure based on results of that trial. As a result a dedicated SID/NPR Task Force was set up, chaired by Neil Thompson, London Luton Airport Operations Director, involving high level representatives from DAP, NATS, Airline partners and other UK Airports. This group met on a regular basis and following extensive analysis and further simulation, work was carried out by easyJet before a final procedural design for a revised Standard Instrument Departure (SID) route on the 26 Clacton/Dover/Detling heading was completed. Progress updates were reported regularly to the London Luton Airport Consultative Committee (LLACC) and the Noise & Track Sub-Committee (NTSC) and to all those affected communities.

A number of individual Stakeholder Engagement Briefings were held throughout January and February 2013 to provide progress updates on proposals for the design of an RNAV1 westerly departure route for the 26 Clacton/Dover/Detling heading. Details relating to proposal for 'live' trials, incorporating two alternative options, over a 12 week period starting 7th March 2013 were explained and attendees were asked to encourage local residents to provide feedback (both positive or negative) on any perceived change in flight patterns and/or noise during the duration of the trial. This feedback would then be assessed independently along with all relevant noise monitoring data before a decision was then taken as to whether or not to proceed with a formal Airspace Change Proposal consultation. The LLACC and NTSC members and all those who attended the Stakeholder meetings were advised that an RNAV1 Briefing document was available to download from the Airport website.

RNAV1 trials, involving a number of operators flying a revised departure flightpath on the 26 Clacton/Dover flight route during periods of westerly operations took place between 7th March and 22nd June 2013. The LLACC and NTSC members were involved at all stages of the process and full details regarding the background and objective of the two trials (210knots & 220knots) were published on the Airport website. Local residents were asked to provide feedback on any perceived changes in noise levels and/or flightpaths throughout the duration of the trials. A detailed noise monitoring programme was also undertaken, whereby a dedicated portable noise monitoring trailer was located in a number of sites along the flight route to determine the actual noise levels experienced in those communities, pre-trial, during and post-trial. At the end of the trial all operators reverted to non-trial procedures and a detailed assessment was carried out, taking into account all stakeholder feedback received.

On 26th November 2013 the Airport held a further stakeholder meeting at Putteridge Bury, to provide a progress update on the analysis results from the RNAV1 trials and to outline proposals to proceed with a formal Airspace Change Proposal consultation early in 2014, in accordance with CAA guidelines (CAP 725), for a revised flight route on the 26 Clacton/Dover/Detling heading using RNAV1 procedures (220knots). All interested parties were invited to attend this briefing, along with NATS and the LLACC/NTSC members. Below is a list of those communities/organisations represented at that stakeholder meeting.

- Central Bedfordshire Council
- Dacorum Borough Council
- Flamstead Parish Council
- Harpenden Town Council
- Herts Association of Parish & Town Councils
- Luton Borough Council
- Markyate Parish Council
- Redbourn Parish Council
- Sandridge Parish Council
- Slip End Parish Council
- St Albans District Council
- Wheathampstead Parish Council
- NATS (Luton)
- NATS (Terminal Control – Swanwick)
- HALE
- HarpendenSky
- LADACAN
- LLATVCC
- S.O.S.

Community Visits to the Airport

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

In addition to the various RNAV1 Stakeholder Briefings outlined above, the Airport hosted a visit from a local resident of St Albans in May 2013, in order to clarify the general impact of Luton aircraft operations in that area and to explain the objectives of the RNAV1 trials underway at that time. At the beginning of October 2013, the Operations Director hosted a further meeting with this St Albans resident to update them on the analysis work being undertaken following the end of the RNAV1 trials and to discuss general concerns regarding track-keeping of Luton departures in relation to their property.

Towards the end of May 2013, the Operations Director met with a resident of Flamstead (also representing HALE and LADACAN) to provide a progress update on the RNAV1 trials. A member of the team from Bickerdike Allen Partners (BAP) was also present at this meeting to discuss the methodology for analysis of noise data. In July 2013, the Operations Director arranged a further meeting with this Flamstead resident in order to discuss the detailed analysis work being undertaken following the end of the RNAV1 trials on 22nd June 2013.

Airport Visits to the Community

Whilst no invitations were received by the Airfield Environment Office during 2013, Airport representatives were invited to attend the Bedfordshire Business Excellence Awards in November 2013 and were delighted that London Luton Airport won the **"Community Investment"** award. The judges' criteria were "A proud Bedfordshire based company planning continued growth within the community. A company that can demonstrate successes within the community including financial investment, fundraising activities and steps taken to ensure the employee base reflects the local community".

Throughout 2013, London Luton Airport staff continued to take part in a variety of fundraising events and volunteering activities within the local community, in support of our charity partner Sue Ryder.

9. Employment

9.1. Introduction

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

9.2. Methodology

The methodology for this year's analysis is the same as for the previous year. Administrative data sources were used to conduct the survey instead of sending out questionnaires as was the case up to the 2009 survey. The methodology was changed from previous years to be more cost and time efficient in the use of data which was both already purchased and covered the majority of the same information which the survey had historically asked for. The other major advantage was that the Standard Industrial Classification was already listed on the data source thus eliminating the need for businesses to self-classify.

The Inter Departmental Business Register (IDBR) was used as the main data source. This Office for National Statistics (ONS) dataset is a comprehensive list of UK businesses that is used by government for statistical purposes. It provides a sampling frame for surveys of businesses carried out by the ONS and by other government departments. It is also a key data source for analyses of business activity.

The IDBR combines administrative information on VAT traders and PAYE employers with ONS survey data in a statistical register comprising over two million enterprises, representing nearly 99% of economic activity. Analyses that are produced as part of this service are at the same level at which business statistical surveys are conducted (source: ONS website www.statistics.gov.uk).

An initial list was received from London Luton Airport of companies within their boundary. The listing was matched against the IDBR. Companies outside the Airport boundary were identified by the street names/areas as follows:

- Spittlesea Road
- Part of Frank Lester Way
- President Way
- Wigmore House
- Part of Airport Way
- Barratt Industrial Park
- Airport Executive Park

Nine companies who appeared on the list but not the IDBR had imputed figures gained from Airport colleagues and/or planning applications.

The industrial classification used has been updated to the SIC 2007 coding framework used by the Office for National Statistics. This means that the coding will have changed from that found up to the 2009 report. Revision is necessary due to "the need to adapt the classifications to changes in the world economy. The revised classifications reflect the growing importance of service activities in the economy over the last 15 years, mainly due to the developments in information and communication technologies (ICT)". (Source: UK Standard Industrial Classification of Economic Activities 2007 (SIC 2007) Structure and explanatory notes, http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/standard-industrial-classification/index.html).

For the purposes of full interpretation of the results, it should be noted that the sections used in the pre-2010 report map to the new sections as follows:

Previous Codes	New Codes
Forwarding of Freight	Transportation and Storage
General Public Service Activities	Public Administration and Defence etc
Hotels and Restaurants	Accommodation and Food Service Activities
Non Scheduled Passenger Air Transport	Transportation and Storage
Other Supporting Air Transport Activities	Transportation and Storage
Public (Scheduled) Passenger Air Transport	Transportation and Storage
Renting of Automobiles	Administrative and Support Service Activities
Retail Trade	Wholesale and Retail Trade etc
Tour Operators	Administrative and Support Service etc
Travel Agencies	Administrative and Support Service etc
Wholesale of Petroleum Products	Wholesale and Retail Trade etc
Miscellaneous (Airline/Aviation Related)	Not Used
Miscellaneous (Non Airline/Aviation Related)	Not Used

Note: Individual companies may have moved within the coding structure

9.3. Total Employment in and around the Airport

Using main section headings from the Standard Industrial Classification 2007 (SIC 2007), the following was found. Data has been rounded to the nearest hundred, as per ONS guidelines.

Standard Industrial Classification 2007, Section Names	Total Employees
Accommodation and Food Service Activities	400
Administrative and Support Service Activities	1,800
Arts, Entertainment and Recreation	#
Financial and Insurance Activities	#
Human Health and Social Work	#
Information and Communication	#
Manufacturing	1,400
Professional, Scientific and Technical Activities	#
Public Administration & Defence; Compulsory Social Security	#
Transportation and Storage	4,400
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	300
Grand Total	**8,400**

 # Figures have been suppressed where there are less than three companies in a given Sector and/or employment in that sector is less than 100 in accordance with the regulations covering the use of IBDR data

Due to confidentiality issues we are bound by Office for National Statistics protocols to round to the nearest 100 when reporting IDBR figures. This will mean that any changes in reported figures will be in multiples of 100 and therefore lie within that range.

The table illustrates that there are an estimated 8,400 employees in and around the Airport. This is an increase from last year's estimate of 8,200.

9.4. Employment By Working Pattern

The IDBR provides employment figures by full and part time working pattern. The following is found:

Standard Industrial Classification 2007, Section Names	Full Time Employees
Accommodation and Food Service Activities	200
Administrative and Support Service Activities	1,500
Arts, Entertainment and Recreation	#
Financial and Insurance Activities	#
Human Health and Social Work	#
Information and Communication	#
Manufacturing	1,300
Professional, Scientific and Technical Activities	#
Public Administration and Defence; Compulsory Social Security	#
Transportation and Storage	3,500
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	200
Grand Total	**6,800**

 # Figures have been suppressed where there are less than three companies in a given Sector and/or employment in that sector is less than 100 in accordance with the regulations covering the use of IBDR data

Standard Industrial Classification 2007, Section Names	Part Time Employees
Accommodation and Food Service Activities	200
Administrative and Support Service Activities	#
Arts, Entertainment and Recreation	#
Financial and Insurance Activities	#
Human Health and Social Work	#
Information and Communication	#
Manufacturing	#
Professional, Scientific and Technical Activities	#
Public Administration and Defence; Compulsory Social Security	#
Transportation and Storage	900
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	#
Grand Total	**1,300**

 # Figures have been suppressed where there are less than three companies in a given Sector and/or employment in that sector is less than 100 in accordance with the regulations covering the use of IBDR data.

There were several companies who did not state their full/part time working split on the IDBR therefore the figures above do not add to the total employment figures.

The percentage split of full/part time employees found at the Airport, compared to that found in Luton as a whole is as follows:

	Full Time Employees	Part Time Employees
Vicinity of Luton Airport	81.1%	15.7%
Luton UA	76.0% (confidence limit 3.1)	23.5% (confidence limit 3.1)

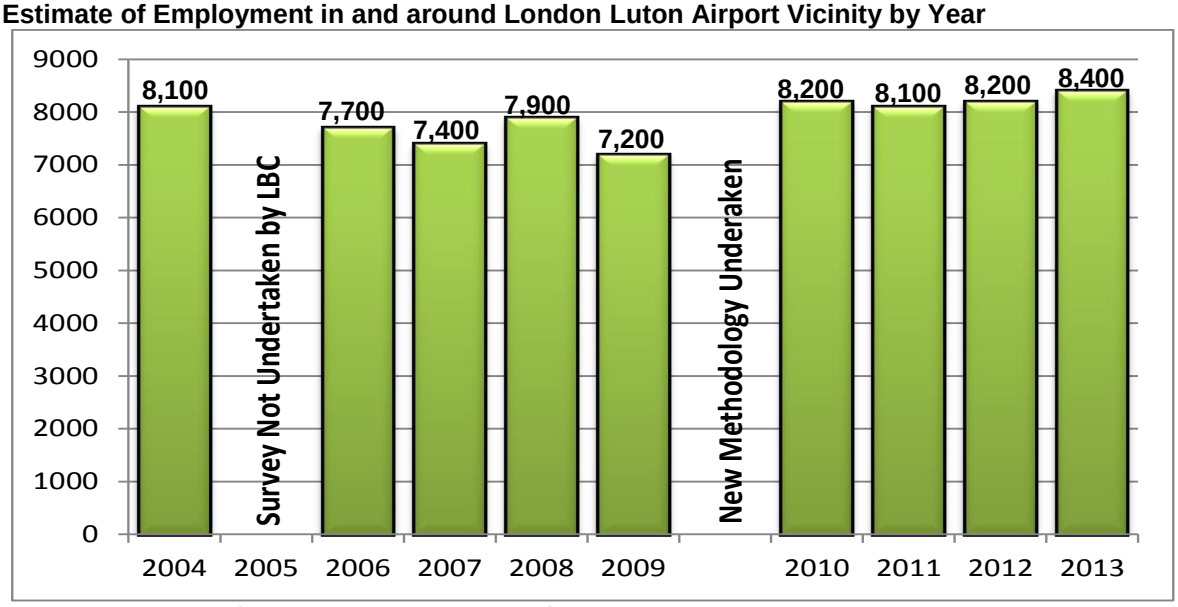
Source for Luton UA Figures: Annual Population Survey, Office for National Statistics Jan 2013 – Dec 2013, latest data. Figures are percentages of those in employment.

Full and part-time working patterns in the vicinity of the Airport differs from that found within Luton as a whole, but the proportion of part time employees has increased since the last survey which may have contributed to the overall increase in employee numbers.

9.5. Time Series

As previously stated, due to the methodological differences employed between years, it is not possible to directly compare the total employment figures over time. However, in the interest of completeness, the following figures from previous years can be used as a proxy measure of changing patterns.

Estimate of Employment in and around London Luton Airport Vicinity by Year



Source: AMR Employment Surveys 2004 and 2006-2013

9.6. Conclusion

In conclusion, there are around 8,400 employees working in the vicinity of the Airport which is slightly more than the 2012 estimate and may have been driven in part by an increase in part time employment. Whether this pattern is set to continue will be seen in future estimates. Please note that due to confidentiality issues we are bound by Office for National Statistics protocols to round to the nearest 100 when reporting IDBR figures. This will mean that any changes in reported figures will be in multiples of 100 and therefore lie within that range.

10. Surface Access

10.1. Road Traffic

The information contained in this section is based on traffic counts conducted at 8 sites during the period 12th-18th September 2013. This period is comparable with previous summer traffic counts and avoids any periods when significant changes in traffic characteristics can occur.

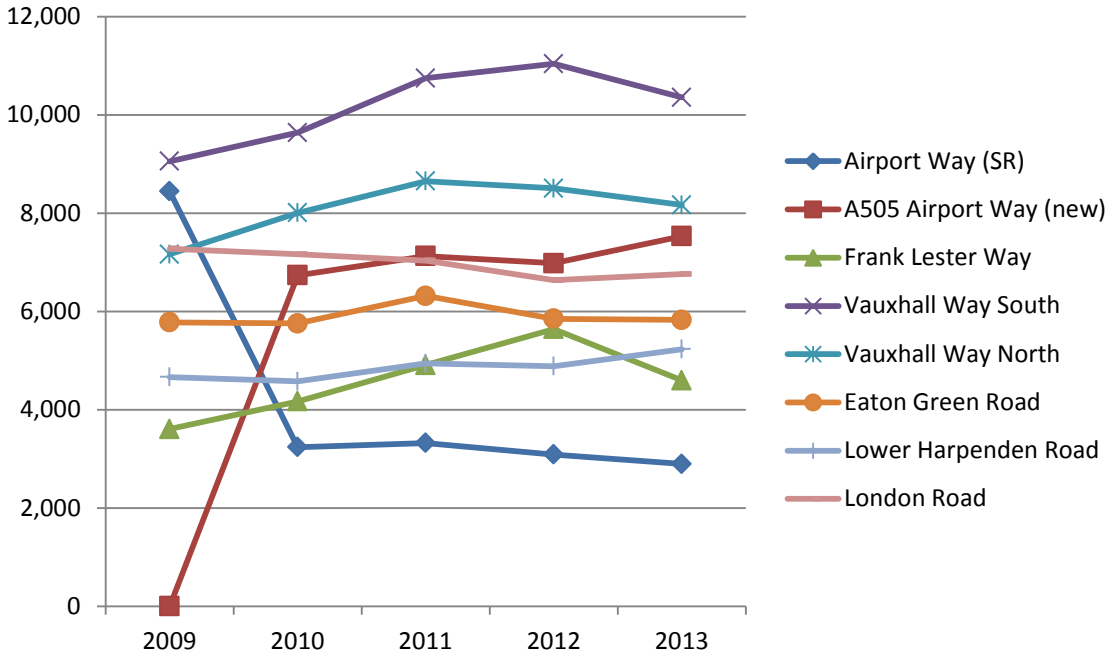
The table and graph below show an increase in 12hr/5day traffic flows between 2012 and 2013 on 2 of the 8 monitored roads, the highest increase being +553 (+7.3%) on Airport Way (new). The most significant decrease in traffic is -1,045 (-22.7%) on Frank Lester Way. However, it should be noted that there was a significant increase in traffic on Frank Lester Way in the 2012 survey, which was attributed to drivers avoiding highway works along Eaton Green Road during that time.

The roads further away from the Airport boundary will also be carrying traffic related to other developments or through traffic and therefore potentially carrying a lower percentage of airport related traffic. In both cases the count indicates a decrease in traffic on these routes from a similar period in 2012.

Summer 2009 - 2013 Traffic Counts (Average 12 hrs/5 day)						
	Map ref	**2009**	**2010**	**2011**	**2012**	**2013**
Airport Way (SR)	*599*	8,443	3,237	3,323	3,088	2,897
A505 Airport Way (new)	*925*	0*	6,735	7,127	6,979	7,532
Frank Lester Way	*445*	3,606	4,170	4,908	5,642	4,597
Sub-total		***12,049***	***14,142***	***15,358***	***15,709***	***15,026***
Vauxhall Way South	*520*	9,055	9,638	10,746	11,039	10,355
Vauxhall Way North	*603*	7,164	8,005	8,652	8,505	8,164
Eaton Green Road	*677*	5,780	5,755	6,317	5,849	5,826
Lower Harpenden Road	*106*	4,666	4,576	4,942	4,885	5,232
London Road	*393*	7,277	7,163	7,037	6,634	6,759
Sub-total		***33,942***	***35,137***	***37,694***	***36,912***	***36,336***
Total		**45,991**	**49,279**	**53,052**	**52,621**	**51,362**

** Road not open*

Summer 2009 - 2013 Traffic Counts (Average 12 hrs/5 day)

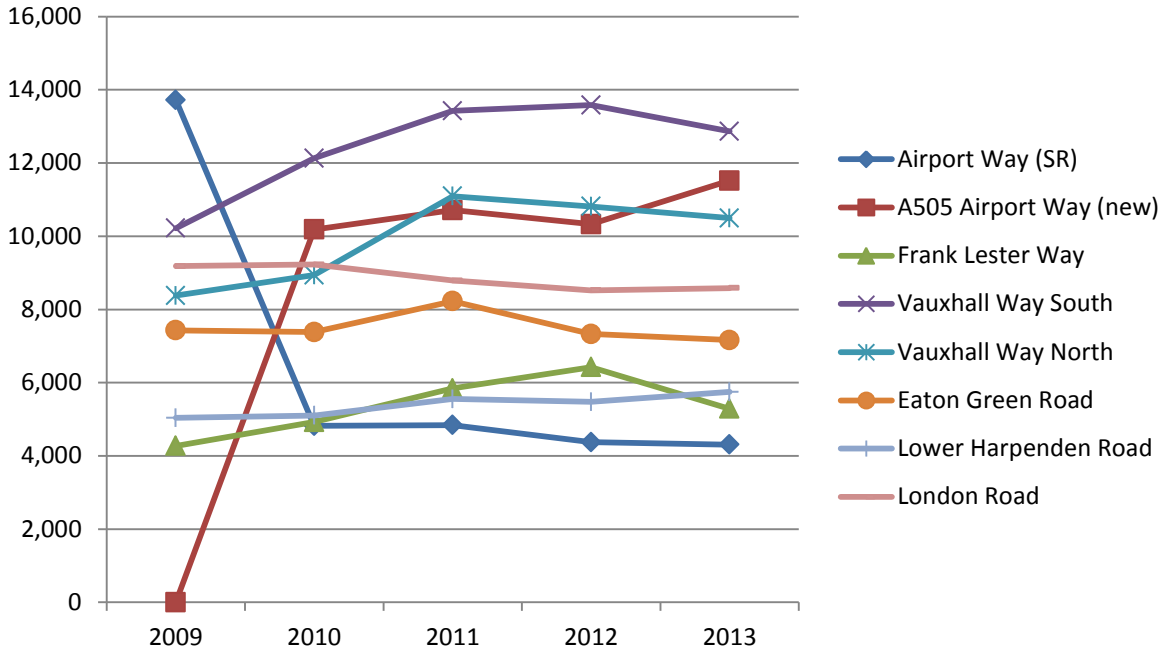


For the 24-hour week (24/7), the table and graph reveal similar patterns to the 12hr/5day traffic counts. The highest increase in traffic is +1,188 (10.3%) on Airport Way (new), while the most significant decrease in traffic is -1,137 (-21.5%) on Frank Lester Way.

Summer 2009 - 2013 Traffic Counts (Average 24 hrs/7 day)						
	Map ref	**2009**	**2010**	**2011**	**2012**	**2013**
Airport Way (SR)	*599*	13,721	4,818	4,840	4,374	4,309
A505 Airport Way (new)	*925*	0*	10,185	10,714	10,330	11,518
Frank Lester Way	*445*	4,275	4,925	5,842	6,426	5,289
Sub-total		***17,996***	***19,928***	***21,396***	***21,130***	***21,116***
Vauxhall Way South	*520*	10,217	12,131	13,421	13,582	12,865
Vauxhall Way North	*603*	8,380	8,939	11,093	10,813	10,496
Eaton Green Road	*677*	7,431	7,383	8,226	7,330	7,161
Lower Harpenden Road	*106*	5,040	5,104	5,555	5,475	5,746
London Road	*393*	9,181	9,225	8,788	8,523	8,582
Sub-total		***33,942***	***35,137***	***37,694***	***36,912***	***36,336***
Total		**58,245**	**62,710**	**68,479**	**66,853**	**65,966**

* Road not open

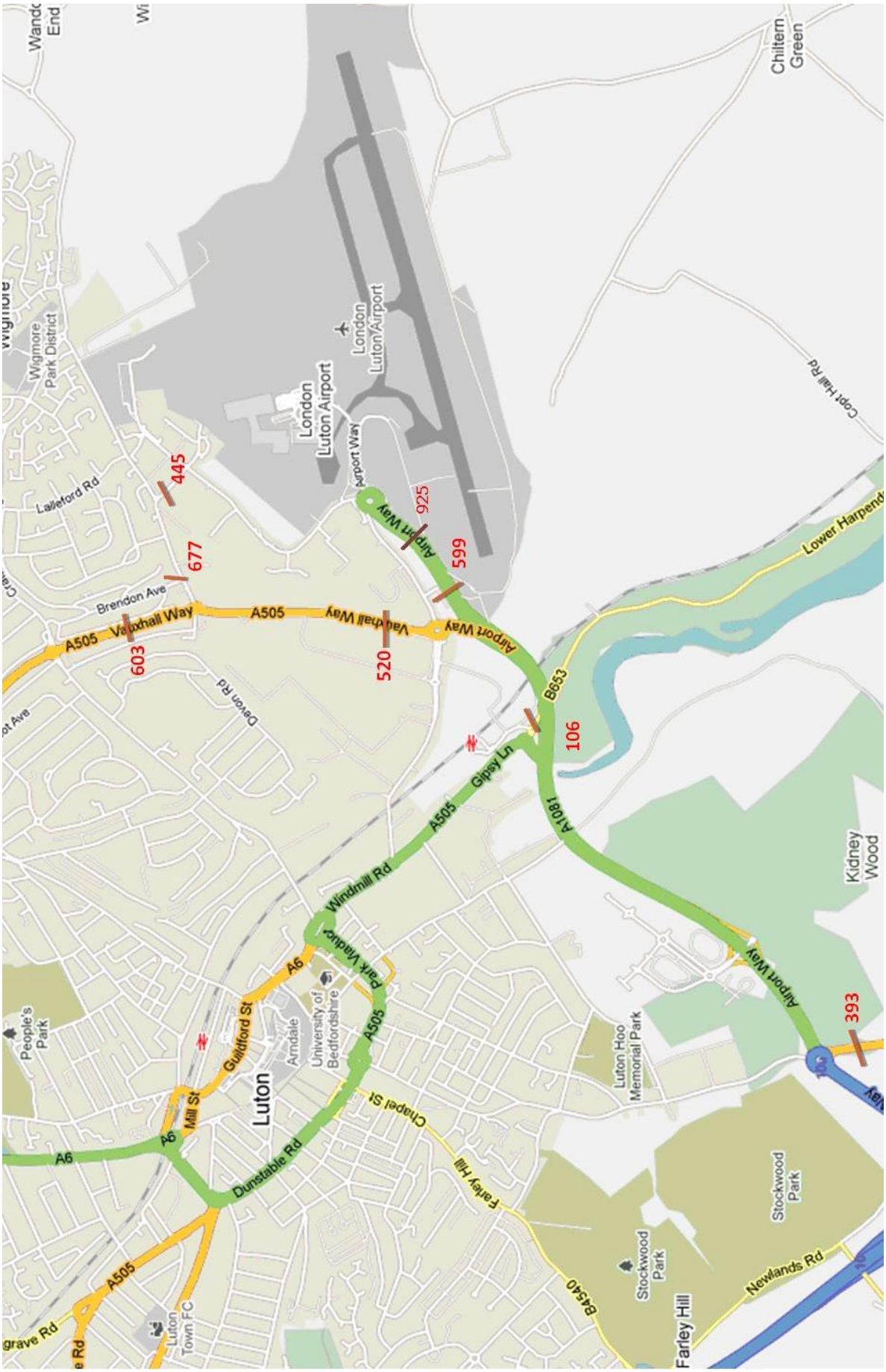
Summer 2009-2013 traffic counts – average 24 hours



Traffic flow along Airport Way (SR) has consistently decreased over the last five years, which is expected given that Airport Way (new) opened in 2009. It is possible that this route may start to show a slight increase from this period onwards as it is now part of the Luton Dunstable Busway route to the terminal.

This data indicates that Vauxhall Way axis accommodates the highest traffic volume in this vicinity. This is due to its strategic location and connectivity to other district and arterial roads into and out of Luton. It is likely that the completion of East Luton Corridor engineering operations and increased activities in and around London Luton Airport have resulted in significant redistribution of traffic flow in the area. See the Figure below for indicative location of these observation points.

Local Highway Network



10.2. Public Transport Services

The table below shows the number of scheduled train services per week from Luton Airport Parkway Station have remained the same as in 2012. However, during this period, First Capital Connect increased the number of carriages from 8 to 12 units on peak time services, which provided additional passenger capacity.

SCHEDULED TRAIN SERVICES FROM LUTON AIRPORT PARKWAY STATION

Number of services per week 7 days	Summer 12	Winter 12/13	Summer 13	Winter 13/14
Direction				
Northbound	1,063	1,063	1,063	1063
Southbound	1,042	1,037	1,037	1037
TOTAL	**2,105**	**2,100**	**2,100**	**2,100**

The table below shows passenger numbers by ticket type that travelled through Luton Parkway Station for the last 3 years. This is a new table to the Annual Monitoring Report, but one which illustrate changes of patronage to Parkway Station and possibly modal change.

The figures have been taken from the Office of Rail Regulation Station Usage estimates. These are published annually. The most recent statistics are quoted. In displaying these figures, season ticket holders have been shown after the sub-total, as it is a reasonable assumption that generally these travellers will not be air travellers.

The figures show a steady increase in rail passenger numbers using Luton Parkway Station. In 2013 the Northern Entrance to the station was opened, providing access from Kimpton Road. Later paragraphs will refer to changes to bus services that may influence these numbers.

PASSENGER NUMBERS BY TICKET TYPE FROM LUTON PARKWAY STATION

Ticket type	2009-2010	2010-2011	2011-2012
Full tickets	1,007,100	1,033,698	1,241,776
Reduced/concessions	816,902	840,880	740,064
Sub-total	***1,824,002***	***1,874,578***	***1,981,840***
Season tickets	414,656	437,542	447,764
TOTAL	**2,238,658**	**2,312,120**	**2,429,604**

For the table above, the years run from 1st April to 31st March. No data is currently available for the previous year.

10.3. Bus and Coach Services

Some National Express services make scheduled stops within the Town Centre, also allowing for patronage between the Town Centre and the Airport.

Within this monitoring period, Greenline services 757 and 767 ceased services direct to the Airport (although continued services to Luton Railway Stations). In addition the 321 and the 61 services were withdrawn from the Airport. Although not included in the count of services, the additional local services to the Airport still provide links to the Airport.

Local bus services show a significant increase, due to opening of the Luton Dunstable Busway. The Arriva 'A' service commenced in September 2013 and offers an extra 497 buses a week, along a fast and dedicated route from Dunstable to the Airport.

The rise in services calling at the Airport and the opening of a northern entrance to Luton Parkway Station, with a footpath leading to Kimpton Road, is helping to promote public transport as a means of getting to and from the Airport.

All single deck buses and coaches are required to be fully wheelchair accessible by 1st January 2016 and these vehicles are gradually being phased in, with many routes offering accessible services already.

BUS AND COACH SERVICES FROM LONDON LUTON AIRPORT

Number of Services per Week	Summer 2012	Winter 2012/13	Summer 2013	Winter 2013/14
Destination				
LOCAL				
Luton Railway Station	319	319	319	586
Others	1,830	1,830	1,830	1,577
National				
Central London	454	454	454	833
Others	700	700	700	1015
TOTAL	**3,303**	**2,971**	**3,303**	**3,955**

Number of Services per Week	Summer 2012	Winter 2012/13	Summer 2013	Winter 2013/14
AIRPORT- AIRPORT LINK				
Birmingham	91	91	91	91
East Midlands	0	0	0	91
London Gatwick	70	70	70	203
London Heathrow	154	154	154	336
London Stansted	182	182	182	133
Manchester	7	7	7	7
TOTAL*	**504**	**504**	**504**	**861**

**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.

10.4. Additional Information

LLAOL published its first Airport Surface Access Strategy (ASAS) in 2000, in line with the recommendations of the 1998 Integrated Transport White Paper. This strategy set targets to encourage air passengers and employees to access the airport using more sustainable modes. These targets are being monitored regularly, as part of the wider Local Transport Plan (LTP) monitoring framework. An interim ASAS was published in 2009 to cover the period to 2011.

In January 2012 LLAOL published its *Airport Surface Access Strategy* 2012-2017, with short and long term targets and action plans to encourage more sustainable travel amongst airport passengers and employees.

The planning application submitted by LLAOL in November 2012 indicates that the ASAS and the travel plans for passengers and staff will be monitored as passenger throughput at the airport grows (either as a result of natural growth or as a result of the planning application).

The Civil Aviation Authority (CAA) undertakes continual passenger surveys at many of the major airports in the UK, including London Luton. In common with other airports, LLAOL uses this survey data to assess trends in passenger 'modal shift' from private to public transport. The table below shows the weighted CAA data for 2008 to 2012. The CAA statistics suggest that 33% of airport passengers now choose to use public transport.

Table 10.3.1: Passengers travelling to the Airport by various modes (CAA Data)

%	2008	2009	2010	2011	2012
Private Car – Drop Off	26	28	27	27	27
Private Car – Park	27	27	24	23	23
Rail	19	17	17	15	17
Bus/Coach	14	14	15	16	16
Taxi	14	14	16	18	17

10.5. Car Parking

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 have no option but 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.

The number of staff car parking spaces remained unchanged during 2013, whilst passenger car parking capacity increased slightly in the long term car park.

On site Car Parks or Car Parks within the Airport boundary

Passenger	Spaces	Area m²
Short Term	1,089	39,373
Mid Term	2,301	65,000
Long Term	4,301	98,050
Priority Parking	170	5,778
Passenger Total	***8,678***	***208,201***
Staff Total	***4,730***	***97,270***
Total	**12,466**	**305,471**

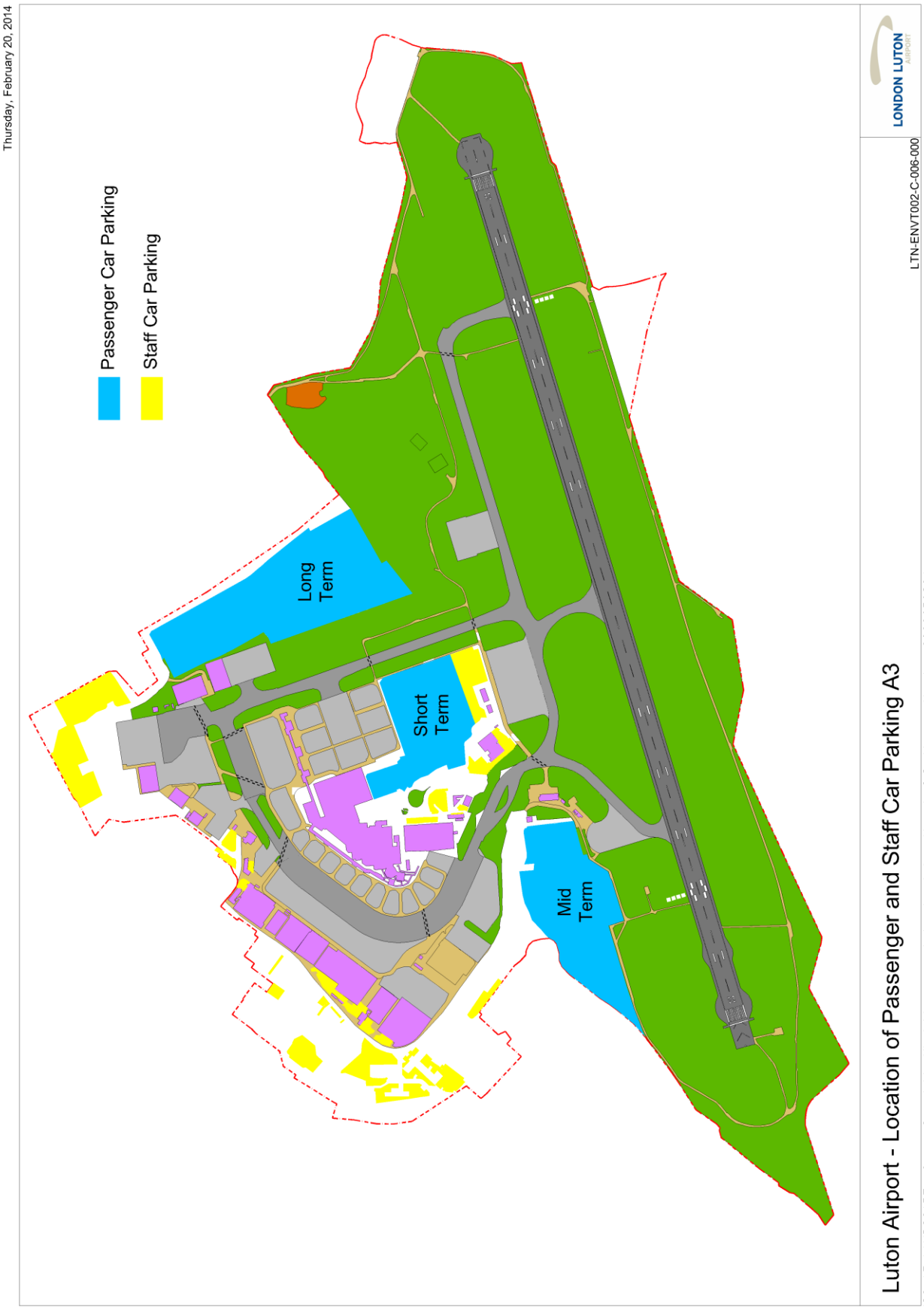
Policy LLA2 seeks to resist off site airport related parking, unless in exceptional circumstances. However, the existence of these sites should be acknowledged and monitored. Only authorised car parks are noted in the following table, although others may occur around the Airport boundary.

Off site Car Parks or Car Parks outside the Airport boundary

Operator	Spaces*	Area ha
Airparks (Slip End)	4,000*	5.97
Central Car Storage	216*	0.56
Airport Carparkz	1500	2.25
Paige Airport Parking	1600	2.49
Airport Park Luton	450	0.68
Total	**7,766**	**11.86**

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

Location of Passenger and Staff Car Parking



11. Planning

11.1. National Aviation Policy

The Government's White Paper "The Future of Air Transport" which was published in December 2003 was replaced by the Aviation Policy Framework (APF) in March 2013. The APF is a higher level document than the previous White Paper and no longer refers to specific airports. For further information regarding National Aviation Policy prior to 2003, please refer to previous editions of the AMR.

The Air Transport White Paper had set out in detail which specific developments would be supported at particular airports across the UK, though the Coalition Agreement of May 2010 superseded this in relation to further runways at the major south-east airports. The APF does not provide such detail, but rather sets out the Government's objectives and principles to guide plans and decisions at the local and regional level. The independent Airports Commission (also known as the Davies Commission) will provide recommendations in relation to the scale and timing of any requirements for additional capacity.

In the short term, to around 2020, the APF proposes a strategy based on a suite of measures, namely:

- *"making best use of existing capacity to improve performance, resilience and the passenger experience;*
- *encouraging new routes and services;*
- *supporting airports outside the South East to grow and develop new routes; and*
- *better integrating airports into the wider transport network."*

The APF makes a number of references to the role that LLA plays in the UK. In paragraph 1.41 it states:

"The demand for aviation in the UK is concentrated in the South East, a densely populated region whose economy comprises multiple high-value sectors including finance, professional services, technology, media and fashion. This drives consistently high demand for aviation in the region, so that the five main South Eastern airports (Heathrow, Gatwick, Stansted, Luton and London City) account for nearly two-thirds of passengers at UK airports and nearly half of all air transport movements."

In terms of the role that LLA could play in global connectivity paragraph 1.79 states: *"To improve connectivity at an international level and to help make better use of existing infrastructure at London's congested airports, we announced in 2011 that we would consult on extending the UK's existing regional fifth freedoms policy to Gatwick, Stansted and Luton. The granting of fifth freedoms would allow a foreign airline to carry passengers between these three London airports and another country as part of a service that begins or ends in the airline's home country. For example, a Singaporean airline would be able to operate a service from Changi Airport in Singapore to Gatwick Airport and then on to JFK Airport in the US, picking up passengers at Gatwick Airport and carrying them to New York."*

The APF also considers access to airports and notes the investments that have been made to improving rail services to Luton and Gatwick and makes specific reference to the investment the Council is making to M1 Junction 10a.

The Government's overall policy on aviation noise is to limit and, where possible, reduce the number of people in the UK significantly affected by aircraft noise. This is consistent with the Government's Noise Policy for England, which aims to avoid significant adverse impacts on health and quality of life. To this end the Government recognises the International Civil Aviation Organisation's (ICAO) 'balanced approach' which seeks to identify the noise problem at an airport and then assess the cost-effectiveness of various measures to reduce noise. The four main elements are: reduction at source (quieter aircraft); land-use planning and management (including use of conditions and legal agreements to mitigate and reduce to a minimum adverse impacts); operational procedures (how aircraft are flown and their routes to limit noise impacts); and operating restrictions (preventing noisier aircraft from flying to airports).

The Airports Commission was established in September 2012 with the role of defining the Governments objectives and policies on the impacts of aviation. To date they have heard evidence from a number of parties and carried out a number of consultations on future capacity, climate change and the role of regional airports. Their most recent consultation was in October 2013 covering emerging thinking on airport capacity in the UK.

The Commission has provisionally concluded that additional runway capacity will be required in the south east of England in the coming decades. It also will be looking at a mechanism for managing the carbon impact of aviation. Therefore any decision on future airport capacity is likely to be taken after 2015.

The updated National Infrastructure Plan was published on 4 December 2013 and sets out the Government's plan to meet the UK's infrastructure ambitions for the next decade and beyond.

The Plan predicts that passenger numbers at UK airports will increase from the 2011 figure of 219 million passengers per annum (mppa), to 315mppa in 2030 and 445mppa by 2050. These forecasts are based on the effect of capacity constraints that will present a capacity challenge in the medium and long term beyond 2020. The Airports Commission will examine the scale and timing of any requirements for additional capacity to maintain the UK's global hub status. Their findings will support a National Policy Statement (NPS) for Airports for a future Government. No date is given at this stage for the publication of the NPS

11.2. Strategic Planning Policy

In December 2010, the Government announced a review of planning policy, designed to consolidate all Planning Policy Statements (PPS), Circulars and Planning Policy Guidance Notes (PPG) into a singular National Planning Policy Framework (NPPF). Following consultation on a draft in July 2011, the final version was published on 27th March 2012. Local Planning Authorities were given a 12 month transition period to ensure their plans were compliant with the National Planning Policy Framework (NPPF).

In 2011 the Localism Act was given Royal Assent. This provided enabling powers for the Secretary of State to abolish the regional planning system. The East of England Plan (Revocation) Order 2012 revokes the regional spatial strategy and any direction preserving policies in Old Structure Plans. The Order was made on 6th December 2012 and came into force on 3rd January 2013. The Localism Act also provided powers for new plan making regulations introduced in 2012 and the preparation and consolidation of plan documents into single Local Plans.

Planning law requires that applications for planning permission must be determined in accordance with the development plan, unless material considerations indicate otherwise. The NPPF must be taken into account in the preparation of local and neighbourhood plans, and is a material consideration in planning decisions. The NPPF focuses on the promotion of sustainable development.

In summary, since the revocation of the East of England Regional Plan, the development plan for the area comprises the NPPF and the Luton Local Plan (2001-2011).

11.3. Local Planning Policy

The Luton and Southern Central Bedfordshire Joint Committee was disbanded in March 2012 following the Secretary of State withdrawing the pre submission Core Strategy in September 2011. Luton Borough Council Members of the Joint Committee did not support the core strategy document. However, Central Bedfordshire Council have prepared a new Development Strategy largely founded on the approach of the previous joint core strategy as far as it relates to Central Bedfordshire and this plan has undergone a pre submission consultation although its progress is halted pending new work on objective housing evidence via a joint Strategic Housing Market Assessment with Luton and other partners within the housing market area. Consequently work commenced on a Local Plan for Luton under the requirements set out within the NPPF. However, in the interim, the Borough Council's adopted Luton Local Plan (March 2006) remains part of the statutory development plan until replaced when the new local plan is prepared.

Furthermore, the LLA Development Brief (February 2000) sets out detailed proposals for further development at LLA and is adopted by Luton Borough Council as Supplementary Planning Guidance (in September 2001).

The NPPF was published in March 2012 and requires plans to be soundly prepared i.e. positively prepared (evidenced based on objective needs); justified (against reasonable alternatives); effective (deliverable which requires local authorities to adopt an approach under the duty to cooperate on cross boundary matters); and consistent (with national policy).

The publication of the Localism Act in November 2011 signalled an overhaul of the planning system with more emphasis on a national policy framework and local neighbourhood plans.

A work programme for the new Local Plan (Local Development Scheme or LDS) to replace the existing Luton Local Plan was approved by the Council's Executive on 23 January 2012, commencing with evidence gathering. Throughout the process, negotiations are required under the 'duty to cooperate' to achieve a satisfactory understanding with neighbouring authorities. This is critical to the soundness of respective local plans.

A six week consultation took place from 25th June to 3rd August 2012 inviting representations on the content of the new local plan. A revised timetable (LDS) for the preparation of the Local Plan was approved by the Council's Executive on 25th March 2013. Since that time further evidence gathering and evaluation has taken place and the council has decided to introduce an informal draft Local Plan consultation stage before moving to Pre submission consultation. The draft Local Plan public consultation is expected to commence in February/March 2014 and the timetable was again revised at the Executive on the 13th January 2014 (subject to progress of the joint SHMA and final LDS approval by full council).

A separate development plan document relating to the Community Infrastructure Levy (CIL) was also to be progressed in parallel with the new local plan. However, because of evidence on viability and development economics in Luton, this work is in abeyance for 2 years but will be kept under review for any improvement in the development and property market.

11.4. Luton and Dunstable Local Transport Plan 2001-2006 (LTP1)

The Local Transport Plan (LTP1) was first submitted to central Government in July 2000. It contained two major transport schemes proposed to serve the south east of Luton, including the Airport: the Luton and Dunstable Busway (LDB) and road and junction improvements in the East Luton Corridor (ELC). The latter received Government approval following a Public Inquiry in 2005 and construction began in July 2006, funded through the first round of the Communities Infrastructure Fund and the second round of the Growth Areas Fund.

The LDB received provisional funding though the LTP capital programme in December 2003 and a Public Inquiry reported favourably upon the scheme in late 2006. A final business case was submitted in December 2009 and construction began in 2010. The LDB was officially opened by Transport Minister Norman Baker on 24th September 2013.

11.5. Luton-Dunstable-Houghton Regis Local Transport Plan 2006-2011 (LTP2)

The second Luton-Dunstable-Houghton Regis Local Transport Plan was submitted to central Government in March 2006. It includes a long-term strategy, for the period up to 2020. One of the objectives of this strategy is to achieve planned growth at the Airport. Over the period up to 2011 the Plan is structured around a series of 'Shared Priorities', which have been agreed between Central and Local Government: accessibility, air quality, congestion and safety. Of these, accessibility is the most relevant to surface transport serving the Airport.

In addition to continuing support for the LDB and ELC schemes, both of which have now been completed, the LTP2 proposed improvements at Luton Airport Parkway station (providing a new entrance from Kimpton Road) that is consistent with the routeing of the LDB services along Kimpton

Road. The Northern entrance to Parkway Station was opened on 19th April 2013. A footway leads from Kimpton Road direct to platform 1 at the Parkway Station.

The LTP2 also set out a range of other measures to give better access to the Airport, particularly for employees.

11.6. Local Transport Plan for Luton 2011-2026 (LTP3)

The Council was required to submit the third Local Transport Plan (LTP3) to the Government by the end of March 2011 setting out how it would deal with transport matters in and around the town. Whereas the first and second LTPs covered Luton, Dunstable and Houghton Regis, the third plan only covers Luton. The LTP3 comprises two main parts.

The first sets out the long-term Transport Strategy covering the period up to 2026; consistent with the then joint Core Strategy and the Sustainable Communities Strategy. The Council consulted a wide range of partners and stakeholders, including London Luton Airport Operations Limited (LLAOL), in developing this part of the Plan.

Based on recent trends in both passenger throughput and airport employees at Luton, and taking account of recent changes in government policy relating to other London airports, the LTP3 strategy sets out anticipated passenger numbers of between 15.5mppa and 18 mppa by 2026, together with an additional 3000 employees over the same period.

The *Airport Surface Access Strategy* (*ASAS*) 2012-2017 was published by the Airport in January 2012. It is the Airport operator's intention to improve access to the Airport and promote longer term targets to encourage sustainable travel to and from the Airport. The Council will work with the airport operator to achieve this.

The second part of the LTP3 is the Implementation Plan that sets out local transport schemes and initiatives the Council propose to introduce over the period up to 2014/15. Key elements of the Implementation Plan of relevance to the Airport include

- a focus on smarter choices and travel by more sustainable modes (walking, cycling , public transport) supported by employee travel plan initiatives (e.g. car share database)
- implementation of a new northern entrance to Luton Airport Parkway Station
- improvement of M1 Junction 10a, and
- extension of Airport Way to serve planned employment sites east of the Airport

Community and Stakeholder consultation on the whole of the Plan and accompanying Strategic Environmental Assessment (SEA) commenced on 24th December 2010 and ended on Monday 14 February 2011. The finalised LTP3 was presented to the Council's Executive and adopted in March 2011.

The M1 Junction 10a improvements were the subject of examination through the Nationally Significant Infrastructure Project procedure under Section 31 of the Planning Act 2008 (as amended).

The application for the M1 J10a Grade Separated Junction was submitted to the Planning Inspectorate on 29th June 2012 and heard by the Examining Inspector (as the Examining Authority) commencing on 16th November 2012, closing on 13th May 2013. Following the recommendation of the Examining Authority, the Secretary of State for Transport made the Development Consent Order (DCO) on 30th October 2013 which came into force on 20th November 2013. Work will commence in early 2014 and will take around 18 months to complete.

11.7. Developments in and around London Luton Airport

Background

Policy 48 of the Structure Plan 2011 required the long-term growth strategy for the Airport to be subject to a Development Brief. The Development Brief was produced by LLAOL for consultation in February 2000 and subsequently approved as Supplementary Planning Guidance by LBC in September 2001.

The adopted Development Brief is the current framework for planning applications, although the Surface Access Strategy has since been reviewed and a further review was undertaken and the Interim Airport Surface Access Strategy 2009-2011 was published in August 2009. This document was also subject to review in 2012.

Eventually the new planning system and the provisions of the Aviation Policy Framework (AVF) will supersede current policy. Until that time the existing policies have been saved through the process described above.

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

"The carrying out on operational land by a relevant airport operator or its agent of development (including the erection or alteration of an operational building) in connection with the provision of services or facilities at a relevant airport"

An operational building is defined as:

"A building, other than a hotel, required in connection with the movement or maintenance of aircraft, or with the embarking, disembarking, loading, discharge or transport or passengers, livestock or goods at a relevant airport."

Development is not permitted if it involves:

- *The construction or extension of a runway;*
- *The construction of a passenger terminal the floor space of which would exceed 500 square metres;*
- *The extension or alteration of a passenger terminal, where the floor space of the building as existing at 5th December 1988 or, if built after that date, would be exceeded by more than 15%;*
- *The erection of a building other than an operational building*
- *The alteration or reconstruction of a building other than an operational building, where its design or external appearance would be materially affected.*

Planning Applications

On 3rd December 2012, LLAOL submitted a planning application to LBC for:

"Full planning application for dualling of Airport Way/Airport Approach Road and associated junction improvements, extensions and alterations to the terminal buildings, erection of new departures / arrivals pier and walkway, erection of a pedestrian link building from the short-stay car park to the terminal, extensions and alterations to the mid-term and long-term car parks, construction of a new parallel taxiway, extensions to the existing taxiway parallel to the runway, extensions to existing aircraft parking aprons, improvements to ancillary infrastructure including access and drainage, and demolition of existing structures and enabling works. Outline planning application for the construction of a multi-storey car park and pedestrian link building (all matters reserved)"

The application is a hybrid application, with full details submitted for all of the development except in relation to the multi-storey car park and pedestrian link building, where all matters are reserved for subsequent determination. The application was accompanied by an Environmental Statement (ES), with a scoping request having been made in August 2012 and Luton Borough Council (LBC) having provided its scoping opinion in November 2012 (ref 12/01400/FUL).

The scheme involves the following works within the existing Airport boundary:

- Dualling of the road from the Holiday Inn Roundabout to the Central Terminal Area;
- Safeguarding an extension to Airport Way so as to provide an access route to facilitate the development of Century Park;
- Improvements of the public transport hub adjacent to the terminal;
- Construction of a multi-storey car park and pedestrian link to the western side of the existing short-term car park;
- Extension to the mid-term car park and long-term car park;
- Improvements to the terminal building involving internal reorganisation and minor extensions and building works;
- Construction of a new pier (Pier B);
- Construction of a new taxiway parallel to Taxiway Delta; and
- Taxiway extensions and rationalisation of aircraft parking area with new stands replacing and improving existing stands.

This application seeks to increase the capacity of London Luton Airport to 18mppa from a current capacity of approximately 12mppa.

The application was reported to a meeting for LBC's Development Control Committee on 20th December 2013. Members resolved to approve the application, but the application had to first be referred to the National Planning Casework Unit to allow the Secretary of State the opportunity to further examine the application, before formal determination.

There were no other notable physical developments undertaken or commenced by LLAOL within the airport boundary during 2013.

Other developments on or adjacent to the site, but carried out by third parties include;

- Construction of a new vehicular access ramp, linking apron to rear fixed base operation circulation route, with associated exterior stairs and additional security fence and gate. Harrods Aviation (Hangar 129)
- New advertisements for Harrods Aviation (Hangar 129) and Thomson Airways (Hangar 61)

Hotel developments

The Good Practice Guide on Planning for Tourism, which replaced PPG21 (Tourism) in 2006, states: "*Tourism is of crucial importance to this Country. It generates significant revenues, provides millions of jobs, supports communities and helps maintain and improve important national assets".* This document was withdrawn following the publication of the NPPF.

The NPPF also requires local planning authorities "*to plan proactively to meet the development needs of business and support an economy for the 21st Century."*

The area around the Airport proves to be attractive to hotel developers and operators. The following sites have valid planning permissions for such development.

Site address	Current status of application	Number of bedrooms
Express by Holiday Inn	Implemented	147
Hotel Ibis	Implemented	162
Premier Inn (The Brache)	Implemented	131
Napier Park/Stirling Place	A revised scheme was approved subject to the completion of a S106 legal agreement	200
Hampton by Hilton 42-50 Kimpton Road	Opened January 2013	188
Ramada Encore, Airport Way	Opened July 2012	124
Airport Way/ELC	Approved February 2011 not yet commenced.	171
Former Mondi Packaging site, Airport Way	Approved April 2013 not yet commenced	156
Former Mondi Packaging car park site, Airport Way	Approved subject to the completion of a S106 legal agreement	120
	Total rooms	**1399**

An application for a mixed-use development, including a hotel at Vauxhall Trailer Park had been recorded previously in the AMR. This application was withdrawn in 2013, following the applicant's decision not to complete the S106 legal agreement (resulting in no decision being issued).

It is envisaged that the demand for hotel accommodation in Luton will grow as the number of passengers travelling through the airport increases.

Planning Appeals

An appeal for an off-airport car park at Vauxhall Trailer Park was lodged with the Planning Inspectorate in 2010; this appeal was dismissed on 14 February 2011. The appellant has a period of 12 months (until 14th February 2012), in which to cease the use of the site for off airport car parking, following a variation of the enforcement notice by the Inspector.

In February 2012, a further application was submitted, where the appellant provided additional information to address to comments made by the previous Inspector. This application was refused in September 2012 and a further appeal was submitted. This further appeal was to be determined under the Public Inquiry appeals procedure. The appeal was withdrawn in August 2013, before the Public Inquiry was held.

An Enforcement Notice was served in respect of an off-airport car park operator for a site in Park Street, Luton. The site was a former garage site, which had been cleared and vacant for a few years. The site is close to residential properties and the occupants of which were experiencing noise and disturbance at unreasonable hours. The use also raised highway safety issues as well as compliance with Policy LLA2. An appeal against the notice was lodged with the Planning Inspectorate in December 2011 and the appeal was dismissed in February 2012.

The most recent appeal decision, relating to airport car parking received by the Council, was received in May 2013 and related to a site in Latimer Road. The applicant in this case referred to the planning application submitted by the Airport Operator. The Inspector acknowledged the application, which at that time had not been considered by the Development Control Committee, but added that the timing of delivery of the proposed growth is unknown. In this particular case the appellants challenged the Inspector's decision in the High Court. In February 2014, Mr Justice Collins ruled that the Inspector did not take into consideration all the information available to him. It is therefore anticipated that a further appeal will be considered by a different Inspector in due course.

12. 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.
General Aviation	Private Aircraft, Helicopters and Business Jets
ICAO	International Civil Aviation Organisation.
INM	Integrated Noise Model. A method of noise contour modelling which uses a wide range of different aircraft types and can be adjusted according to operating procedures.
LAeq,T	The notional A-weighted equivalent continuous sound level which, if it occurred over the same time period, would give the same noise level as the continuously varying sound level. The T denotes the time period over which the average is taken, for example LAeq,16h is the equivalent continuous noise level over a 16 hour period.
Lden	A-weighted, Leq. noise level, measured over the 24 hour period, with a 10 dB penalty added to the level between 23.00 and 07.00 hours and a 5 dB penalty added to the levels between 19.00 and 23.00 hours to reflect people's extra sensitivity to noise during the night and the evening.
Lnight	A-weighted, Leq sound Level, measured overnight 23.00 - 0700 hours.
Military	Flights by British or foreign military aircraft exclusively for military purposes.
Noise Certificated	An aircraft conforming to the requirements of ICAO Annex 16 which lays down specific levels of noise not to be exceeded at specific points on an aircraft's departure. An aircraft must be noise certificated in order to operate at United Kingdom Airports after 1 January 1988 unless exempted by the Civil Aviation Authority.

Noise Preferential Route (NPR)	Noise Preferential Routes are established to ensure that departing aircraft avoid overflying densely populated areas in the vicinity of an Airport, as far as practicable. NPRs are valid until the aircraft has reached an altitude (above mean sea level) of 3,000ft during the daytime or 4,000ft at night, depending on the flight route. Once an aircraft has achieved this altitude Air Traffic Control may tactically vector the aircraft, taking into account any other airspace constraints, in order to integrate it into the overall flow of national traffic.
Official	Flights solely for official purposes by British or foreign civil government departments.
Positioning Flights	Flights by air transport operators for the sole purpose of moving their own aircraft, personnel or stores from one place to another and air transport flights forced to return to base by bad weather, engine failure or other causes.
RNAV-1	Area Navigation (GPS based aircraft navigation technology)
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.

13. 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
NATS (National Air Traffic Services)	www.nats.co.uk
The Department for Transport (Aviation)	www.dft.gov.uk/aviation
Hertfordshire & Bedfordshire Air Quality Monitoring Network	http://www.hertsbedsair.net/
London Luton Airport Consultative Committee	www.llacc.com
London Luton Airport Night Noise Policy	http://www.london-luton.co.uk/en/content/8/241/operations.html
London Luton Airport Noise Action Plan	http://www.london-lutoninthecommunity.co.uk/noise-action-plan
TraVis online flight tracking tool	http://www.london-luton.co.uk/en/flighttracking/

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This document can be made available in a range of languages, large print, Braille, on tape, electronic and accessible formats from Kevin Owen. Tel: 01582 547087

Informacje te moga być dostępne w innym formacie. Jeżeli wymagana jest kopia napisana większym drukiem, na kasecie lub w języku innym niż angielski prosimy o kontakt telefoniczny pod numerem: 01582 547087

ਜ਼ੋਕਰ ਰੁਸੀਂ ਸੁਝਾਓ ਦਿਤੇ ਹੋਏ ਪ੍ਰੋਜੈਕਟ ਬਾਰੇ ਆਪਣੀ ਰਾਏ ਦੇਣੀ ਜਾਂ ਹੋਰ ਜਾਣਕਾਰੀ ਪ੍ਰਾਪਤ ਕਰਨੀ ਚਾਹੁੰਦੇ ਹੋ ਤਾਂ ਮਿਹਰਬਾਨੀ ਕਰਕੇ ਦੱਲ ਸਭੁ ਨੂੰ 01582 547 087 ਤੇ ਸੰਪਰਕ ਕਰੋ। ਅਸੀਂ ਤੁਹਾਡੇ ਵਿਚਾਰਾਂ ਦੀ ਕਦਰ ਕਰਦੇ ਹਾਂ।

প্রস্তাবিত প্রোজেক্ট সম্পর্কে যদি আপনার মতামত জানাতে চান অথবা কেবলমাত্র বিস্তারিত খবরাখবর জানতে চান, তাহলে মেহেরবানি করে আবদুল সালামের সাথে 01582 547 087 – এই টেলিফোন নম্বরে যোগাযোগ করুন। আমরা আপনার মতামতের মূল্য দেই।

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