# Annual Monitoring Report **2014**





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# Foreword

London Luton Airport (LLA) experienced a record passenger year in 2014 with 10.5 million passengers using the Airport; an 8% increase year on year in passengers, with a 6% increase in the number of aircraft movements. The continued sustainable growth, demonstrated by the increase in passenger numbers above that of aircraft movements, is testament to the modern and efficient fleet used by the airlines flying from LLA.

the future development of London will see capacity at LLA grow from consent are extensive planning noise. In 2015 a Noise Control Scheme will be published which will Luton Airport intends to meet the requirements of these planning conditions. This will include plans scheme, penalties for aircraft that are found to be flying off-track, and a lowering of both the daytime and night-time noise violation limits.

In June 2014 planning consent for LLA is proud of its noise management record, developed Luton Airport was granted. This through active engagement with the London Luton Airport 12 million to 18 million passengers Consultative Committee (LLACC), by 2026. Integral to the grant of local community groups, airlines, other operators and NATS our conditions set by Luton Borough air traffic control provider. Council regarding the control of Unlike many major UK airports, the majority of London Luton's noise policies and interventions include information on how London have been developed voluntarily, demonstrating commitment to our local communities.

to introduce a noise insulation LLA is an industry leader in noise management and we are continuously looking at new ways to mitigate the impact of aircraft noise on the local community.



In 2015 we anticipate a new navigation technology (RNAV1) will be operational on one of the Airport's main departure routes to ensure aircraft stay on a more tightly defined flight path, designed to avoid populated areas as far as possible.

By listening to local people, I believe we continue to find an appropriate balance between the social, economic and environmental realities of our operations.

Neil Thompson Operations Director



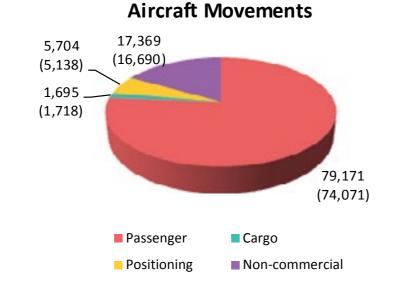
# Air Traffic Data

# Aircraft movements

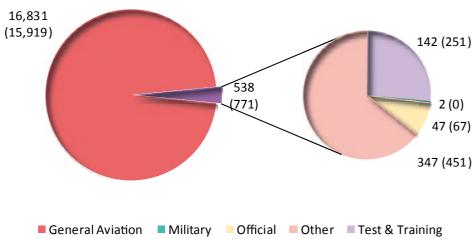
LLA handled a total of 103,939 aircraft movements during 2014, an increase of just over 6% compared to 2013. An aircraft movement is the take-off or landing of any aircraft from the Airport.

The majority of these aircraft movements consisted of 79,171 passenger flights, including commercial flights by executive aircraft (compared with 74,071 in 2013). Other movements included cargo, positioning flights and non-commercial flights.

For comparison purposes 2013 data is shown in the brackets.



### **Non-Commercial Aircraft Movements**



### **Movement Classification**

**Commercial** – operating for hire or reward and includes cargo, passenger and positioning flights **Non-Commercial** – not operating for hire and 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

**Positioning** – typically empty flights to/from other airports

Military – flights on military business

**Official** – flights solely for official purposes by British or foreign civil government departments

Other – other per-commercial movements, e.g., a departing aircraft that has made an unschedule

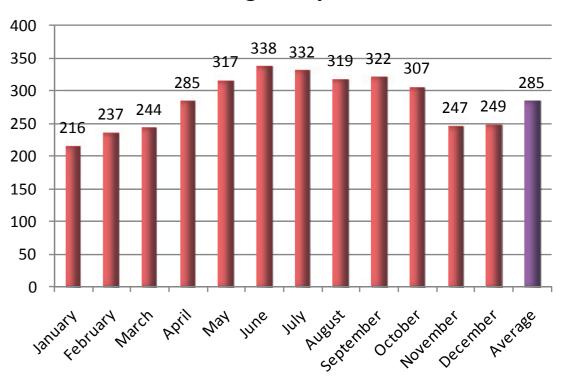
**Other** – other non-commercial movements, e.g. a departing aircraft that has made an unscheduled return to base

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**Test & Training** – training flights involving aircraft and also flights following or during aircraft maintenance

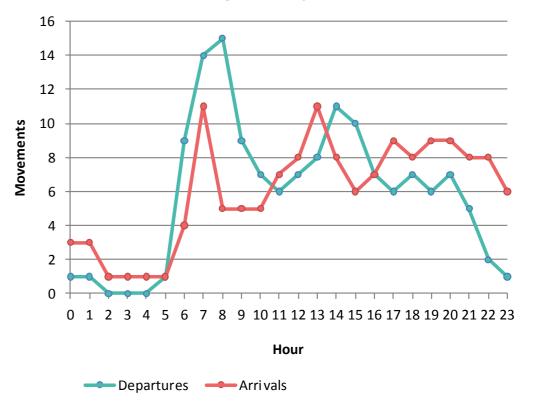
The graph below illustrates that the busiest time of year is May - October, with over 300 flights per day. Our busiest day of the year was on May 23rd with 401 aircraft movements. On the contrary, winter months are the quietest period of the year with less than 250 flights per day. On average there were 285 movements per 24 hours (in comparison with 267 in 2013).

# **Annual Average Daily Movements**



The busiest time on average during 2014 for departing aircraft was 07:00-08:00 hrs, with another peak between 14:00-15:00. The average busiest time for arrivals was 07:00-08:00 and 13.00-14.00 hrs. The graph also highlights a low level of average movements during the hours of 00:00-05:00 hrs.

### **Annual Average Hourly Movements**



# Passenger data

### Scheduled

- •10,041,214 passengers
- •just under 9% increase compared with 2013
- •144 average passengers per flight

### Charter

- •458,925 passengers
- •just under 3% decrease compared with 2013
- •175 average passengers per flight

### Totals

- •10,500,139 passengers
- •8% increase compared with 2013
- Total 145

   average
   passengers per flights



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 10,500,139 passengers were handled at LLA during 2014, 10,041,214 on scheduled flights (96%) and 458,925 on charter flights (4%). This represents an increase in passengers of 8% compared with 2013.

### **Domestic**

- •**942,914** passengers
- •just under 5% decrease compared with 2013

### EU

- •6,806,742 passengers
- •just under 8% increase compared with 2013

### Non-EU

- •2,750,483 passengers
  - •just under 15% increase compared with 2013



### **Totals**

- •10,500,139 passengers
- •8% increase compared with 2013

# Cargo

Cargo operations represent 2% of all air transport movements at London Luton Airport. Night movements accounted for 62% of total cargo movements, relating primarily to postal flights or intra-European express delivery services moving time sensitive and perishable freight such as fresh food, medication and urgently needed technical equipment vital to supporting and sustaining economic growth. The flights carrying more general, less time-sensitive cargo already operate outside of the night-time period. This would include Formula 1 cars, live animals, clothing, machine parts and more.

Operator		Tonnes		
	Day Movements	Total		
2014	709	1,167	1,876	27,500
2013	775 1,153 1,928		1,928	29,092
2013-2014 difference	-9% +1% -3%			-5%

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 the Aircraft Movements piechart which shows dedicated cargo movements.



# **Airlines**

London Luton Airport works very closely with its airline partners. The table below provides the movement statistics by the 10 largest operators.

Operator	Movements	Largest Operators Moveme	ents
easyJet	32,630	50/	
Wizz	20,644	3% 1% 5%	■ easyJet
Ryanair	8,973	1%	■ London Execut
Monarch	4,837	1%	Aviation Wizz
Thomson Airways	2,240	170	■ VVIZZ
Blue Air	1,020		
DHL	908	12%	Ryanair
El Al	828		■ DHL
London Executive Aviation	547	1%	<ul><li>Monarch</li><li>Atlantic Airlines</li></ul>
Atlantic Airlines	485		■ Thomson Airwa
Others	3,649		■ Blue Air
TOTAL	76,761	27%	Others

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



# Movements by aircraft type

	Aircraft Type	Movements	% of Total movements
Passenger Aircraft	Airbus A320 & A320 sharklets <sup>1</sup> (easyJet, Wizz Air, Monarch)	31,620	30.4%
	Airbus A319 (easyJet)	25,120	24.2%
	Boeing B737-800 winglets¹ (Ryanair, Monarch, Thomson, El Al)	11,458	11.0%
	Airbus A321 & A321 sharklets (Monarch)	2,562	2.5%
	Boeing B737-400 (Blue Air)	992	1.0%
	Boeing B757 & B767 family (Monarch, Thomson, El Al)	919	1.0%
	MCD Douglas MD-82/83/87 (Blue Air)	20	0.0%
	Other Passenger Aircraft	414	0.4%
Cargo	Airbus A300-600 (A306) (DHL, MNG Cargo)	1,138	1.0%
	BAe ATP (DHL, Atlantic Airlines)	576	0.6%
	Boeing B737-300 & B737-400 (DHL)	198	0.0%
	Airbus A330-200 (A332) (MNG)	46	0.0%
	Other Cargo Aircraft	77	0.1%
General Aviation	Gulfstream 5 and 500 series GLF5	2,793	3.0%
	Canadair Global Express GLEX	2,518	2.4%
	Cessna Citation Excel C56X	2,498	2.4%
	Canadair Challenger CL60	1,933	2.0%
	Gulfstream 4, 300 & 400 series GLF4	2,357	2.0%
	Embraer Legacy 600 E135	1,569	1.5%
	Canadair Challenger CL30	1,087	1.0%
	Cessna Citation Jet C525	1,233	1.0%
	Dassault Falcon FA7X	860	1.0%
	Other Private Aircraft	11,469	11.0%
	Helicopter	482	0.5%
	TOTAL	103,939	100.0%

The aim of this section is to provide the number of movements for a specific aircraft type. The groups are conditional, assuming that these are the typical aircraft types used for passengers, cargo and general aviation movements. As a result the number quoted here within this section will differ from those within the Aircraft Movements Section.

<sup>&</sup>lt;sup>1</sup> - Winglets and sharklets are small aerodynamic surfaces mounted almost vertically at the wingtips. They significantly reduce the size of the wingtip vortex thus reducing induced drag, increasing lift-to-drag ratio and fuel efficiency of the aircraft. After 80's Airbus come up with a new name for winglets that designed specially for Airbus families and they called it sharklets. There is no difference between winglets and sharklets; the sharklet is just the another word for winglet.

# **Destinations**



London Luton had the busiest year in its 76 year history with notable growth from Wizz Air, Monarch and El Al in particular, plus the addition of new Turkish carrier Atlasjet.

The following diagram shows the destinations flown / on sale to and from London Luton in 2014. Our airlines fly to 105 destinations across 34 different countries.

Top 5 destinations by aircraft movements are:

- 1. Amsterdam
- Budapest
- 3. Geneva
- 4. Dublin
- 5. Edinburgh

More information about our destinations can be found on the airport's website:

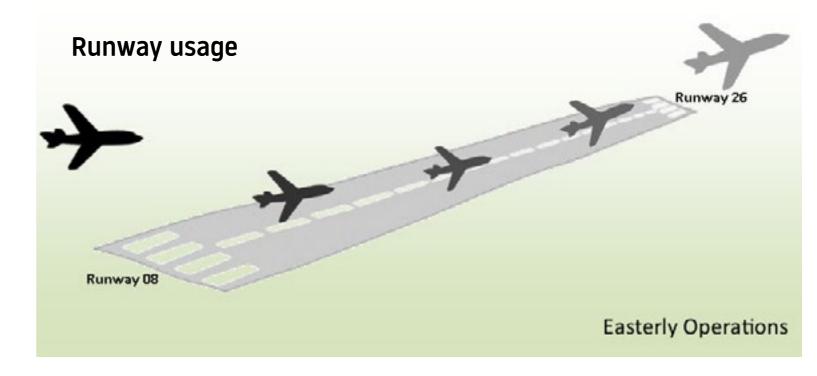
http://www.london-luton.co.uk/en/

### **New Routes 2014**

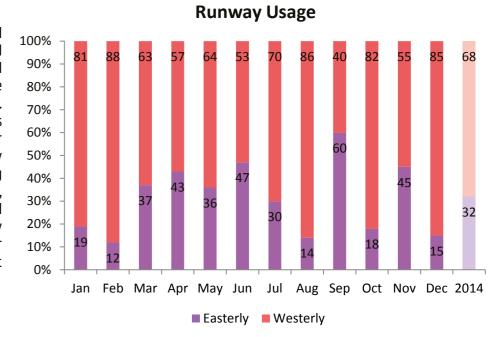
Destination	Launch	Airline
Basle, Switzerland	7-Nov-14	easyJet
Munich, Germany	3-Nov-14	easyJet
Copenhagen, Denmark	3-Nov-14	easyJet
Lyons, France	3-Nov-14	easyJet
Naples, Italy	29-0ct-14	easyJet
Poprad, Slovakia	28-0ct-14	Wizz Air
Szczecin, Poland	27-0ct-14	Wizz Air
Rome, Italy	26-0ct-14	easyJet
Sibiu, Romania	14-Jun-14	Wizz Air
Antalya, Turkey	2-May-14	Monarch
Istanbul, Turkey	2-May-14	Atlasjet
Naples, Italy	2-May-14	Monarch
Skiathos, Italy	16-May-14	Thomson
Catania, Italy	30-Mar-14	easyJet
Venice, Italy	13-Feb-14	easyJet

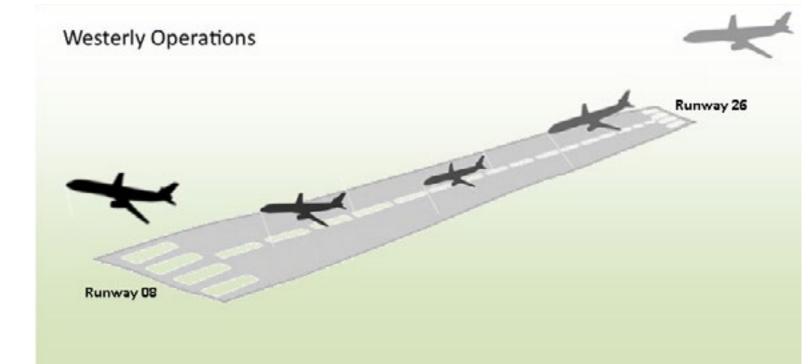
### **Routes Ending 2014**

Destination	Launch	Airline
Istanbul, Turkey	29-Mar-14	easyJet
Trapani, Italy	1-May-14	Ryanair



Aircraft need to land and take off into the wind and therefore the prevailing wind direction determines the direction of airfield operation. A monthly breakdown is shown, highlighting higher than average levels of easterly operations over the spring period and in September 2014, in contrast to prolonged and sustained spells of westerly operations over the winter months, as well as in August 2014.





The runway split during 2014 was 32% easterly and 68% westerly (compared to 36% / 64% in 2013). A breakdown of runway usage over the last five years is also shown in the table, giving a historical split of 31% easterly and 69% westerly.

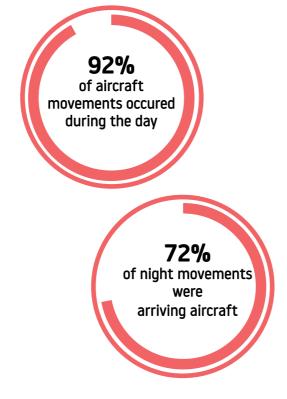
Year	Easterly	Westerly
2014	32%	68%
2013	36%	64%
2012	27%	73%
2011	28%	72%
2010	36%	64%
Average	31%	69%

# Day/Night ratio of movements

There were 8,613 night movements during 2014 (compared to 7,557 for 2013, an increase of 14%), an average 24 movements per night (compared to 21 last year).

Arriving aircraft accounted for 72% of total night movements, relating primarily to the last rotation of Luton based passenger aircraft scheduled to land back at the Airport at night, between 23:00 hrs and midnight.

The average ratio of total aircraft movements during 2014 was 92% day / 8% night (in line with 92% day / 8% night in 2013).



	Day	Night
Departures	49,547	2,419
Arrivals	45,779	6,194
TOTAL	95,326	8,613

The number of night movements quoted within this section will differ from those within the Noise Contour Section 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 Monday to Saturday and until 07:00 on Sunday.

# Departing Aircraft

Aircraft departing London Luton Airport are required to follow specific departure flight paths, or Noise Preferential Routes (NPRs). These NPRs were designed to avoid flying over built-up areas wherever possible and there are 6 NPRs at London Luton, three at each end of the runway.

Our air traffic control service provider (NATS) removed the Dover standard instrument departure (SID) route on 29th May 2014 and replaced this with the existing Detling SID to enable more accurate fuel planning. The Clacton SID was renamed Match on 18th September 2014. The three NPRs at each end of the runway are now – Compton, Olney and Detling/Match. Associated with each NPR is a swathe of air space extending 1.5km each side of the NPR centre line, within which aircraft concentrate and are considered to be flying on track. Aircraft must follow the NPR controls applicable to the runway in use at that time.

When departing on Runway 08, towards the north east (e.g. Stevenage area) aircraft must stay within the NPR corridor until at least 3000ft altitude (or 4000ft at night). The same rules apply when departing on Runway 26, towards the south west (e.g. Hemel Hempstead).

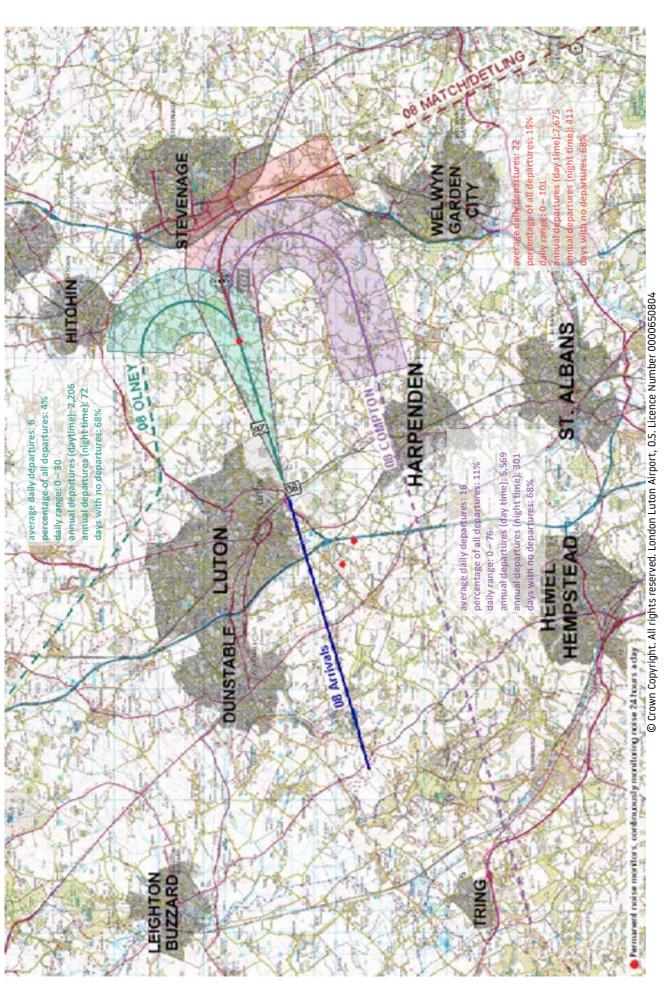
Once aircraft have cleared the designated NPR zone air traffic control (ATC) can instruct the pilots to fly a more direct heading towards their destination. This is known as vectoring. However ATC may direct aircraft off the NPR at any time if this is required for safe separation from other aircraft or for other safety issues (such as avoiding adverse weather).

There were 245 helicopter departures during 2014, on average less than 1 movement per day.

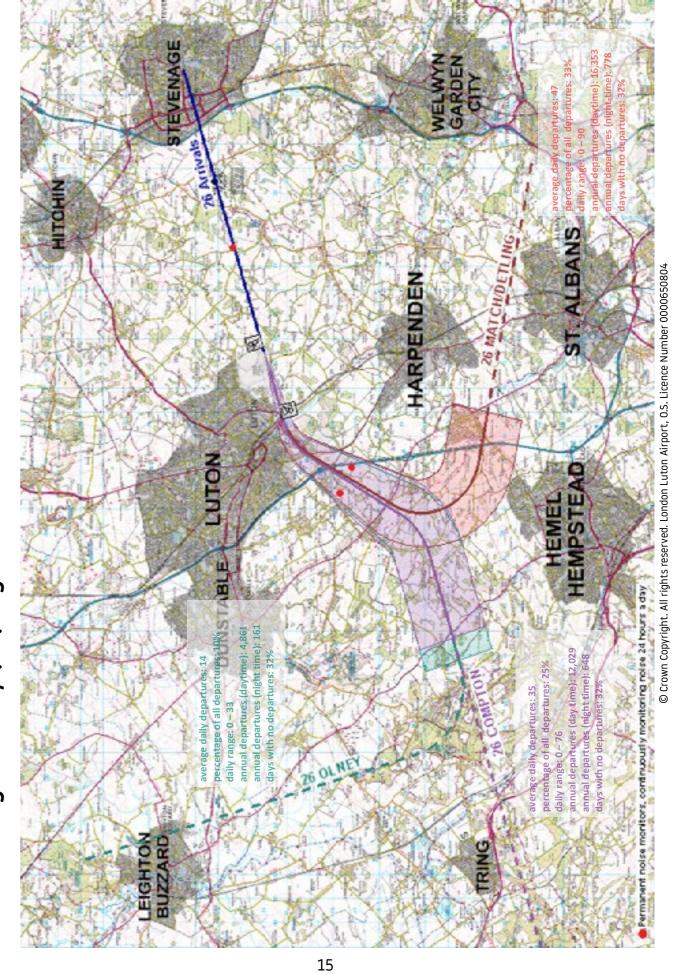
Two maps overleaf show indicative flight routes for westerly and easterly operations at London Luton Airport with detailed information about each departure route.



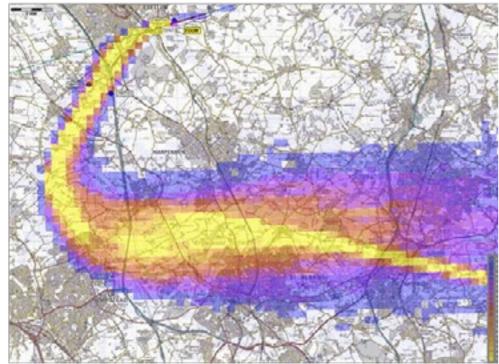
# Plan showing Easterly (08) flight routes



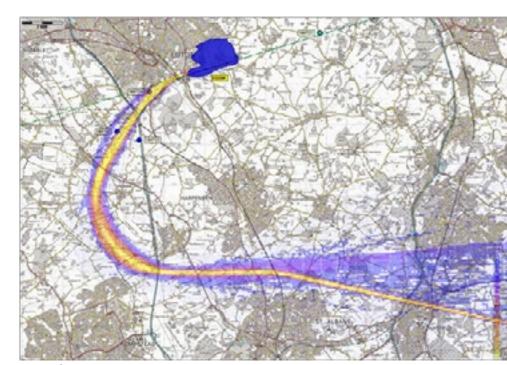
# Plan showing Westerly (26) flight routes



# Area Navigation (RNAV) technology



**Current aircraft dispersal** 



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Aircraft dispersal during the RNAV trials

Area Navigation (RNAV) is a new navigation technology that enables aircraft to fly a route more precisely.

In 2014 the Airport launched an airspace change consultation on the introduction of RNAV along the Runway 26 Brookmans Park departure route. This followed successful trials in 2013. The purpose of this change is to enable aircraft to more accurately fly the departure route, drawing aircraft away from densely populated areas that are currently overflown, thereby reducing noise disturbance. The proposal also slightly modifies the route, again to reduce noise disturbance.

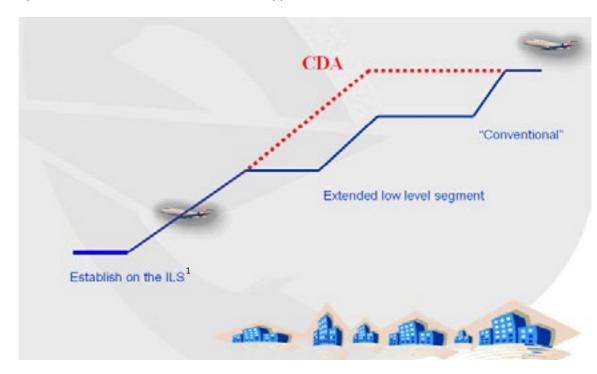
The proposed route passes between Markyate and Flamstead, Redbourn and Hemel Hempstead, as well as St. Albans and Harpenden but still remains within the current NPR corridor. The plot densities shown illustrate the current dispersal of aircraft along this route, and the dispersal seen during the RNAV trials.

The consultation took place over a 13 week period from 10th April 2014 until 9th July 2014. Over 1,400 responses were received during the consultation, with 90% of consultees supporting the adoption of RNAV.

An Airspace Change Proposal was therefore submitted to the CAA, and the implementation of the RNAV procedures is planned for August 2015.

# Arriving Aircraft

Although there are no set routes for arriving aircraft there are long established procedures to mitigate the disturbance that can be caused on approach to the airfield. One of the most successful measures is a noise mitigation procedure called Continuous Descent Approach.



The conventional approach involves descending in steps using engine thrust to level off. In a Continuous Descent Approach, or CDA, an aircraft stays higher for longer and reduces periods of prolonged level flight at lower altitudes. When it's near the Airport the pilot, with engines idling, continuously descends straight to the runway where he completes the landing in the traditional manner. With CDA planes burn less fuel and therefore produce less emissions, but most importantly it reduces the noise by avoiding the engine thrust required for level flight.

The table compares the level of CDA performance by our main airline operators.

	Total Arrivals	CDA Compliance
Ryanair	4,500	98%
Thomson Airways	1,225	94%
easyJet	16,547	94%
Monarch	2,490	91%
Wizz Air	10,333	91%
London Executive Aviation	1,374	89%
Atlasjet	233	82%
Atlantic Airlines	283	88%
Blue Air	510	87%
European Air Transport	503	84%
Harrods Aviation	2,178	75%
NetJets	1,285	77%
Vista Jet	400	62%
El Al	417	71%
Others	9,695	91%
TOTAL	51,973	88%

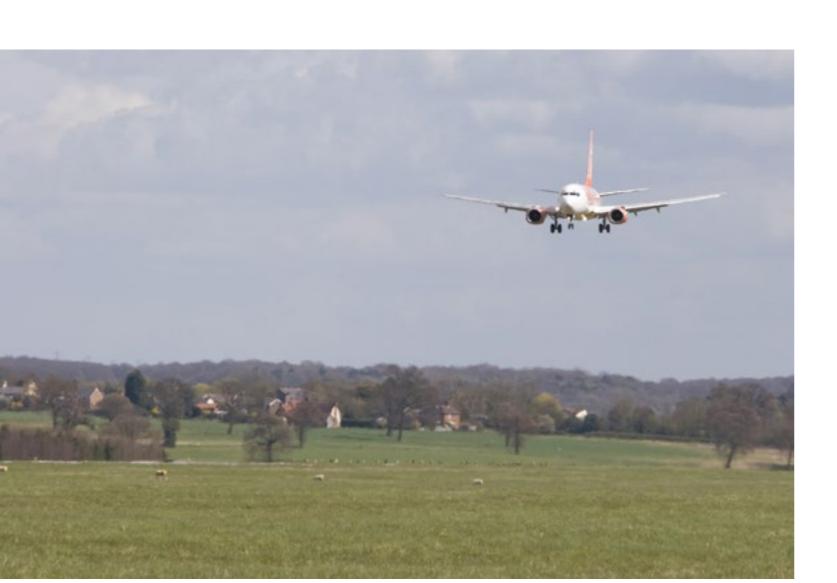
<sup>&</sup>lt;sup>1</sup> - An Instrument Landing System (ILS) is a ground-based instrument approach system that provides precision lateral and vertical guidance to an aircraft approaching and landing on a runway, using a combination of radio signals and, in many cases, high-intensity lighting arrays to enable a safe landing during instrument meteorological conditions (IMC).

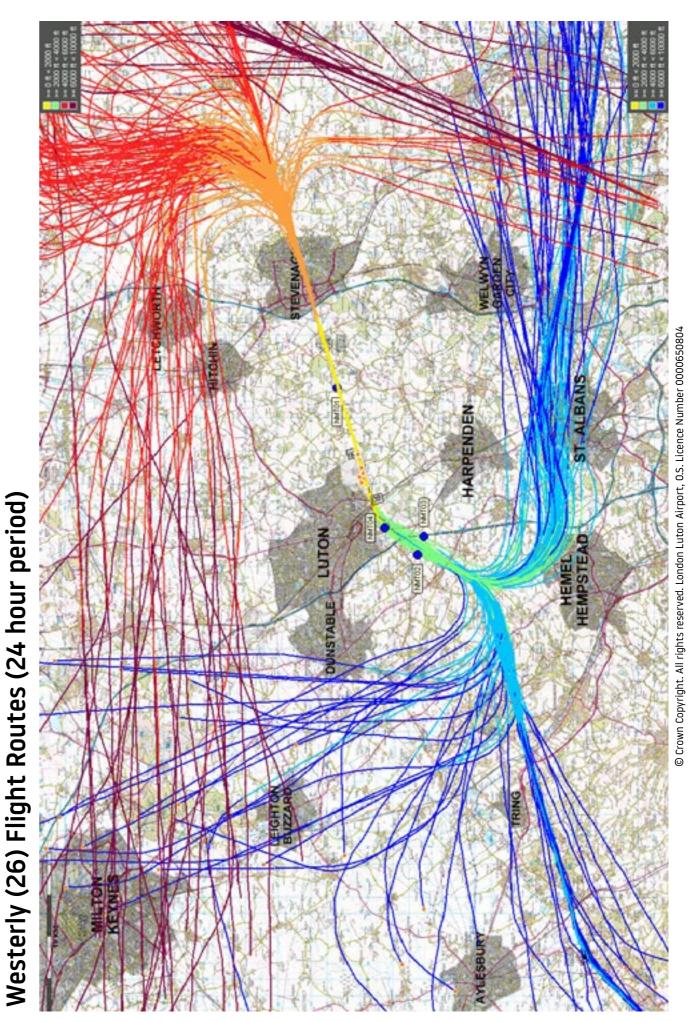
# **Departure and arrival flight tracks**

Maps overleaf display typical 24 hour periods of both westerly and easterly operations, with arriving traffic in red and with departing aircraft tracks in blue. The colour coding from yellow to brown and from yellow to dark blue respresents different altitude bands up to 10,000ft above mean sea level.

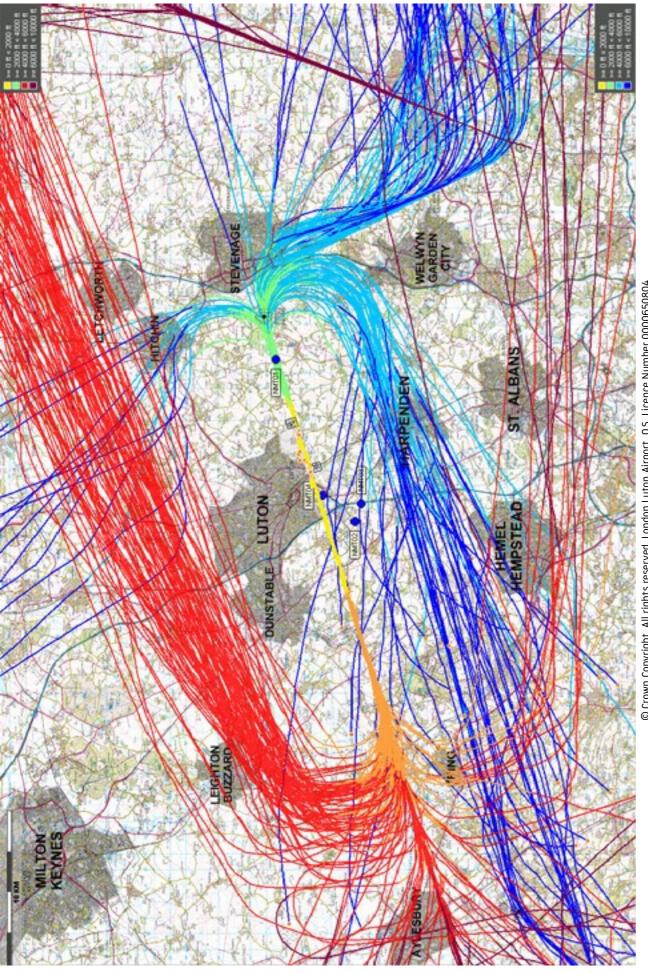
The last two maps display aircraft track density plots for the summer period 16th June - 15th September 2014. A track density plot is a map which displays the pattern of aircraft flight track passing over the region around the Airport during a specific period. The system analyses the number of flights passing over each grid element of an array. The colour coding from purple to red represents the range 1 to over 147 flight tracks over a grid element. If any grid element is not colour-coded, the number of aircraft flight tracks passing over that element was less than 1 flight. The red areas represent locations where operations are more densely concentrated.

It should be noted that London Luton Airport's aircraft movements integrate with traffic travelling to and from other airports in the region, as the south east area in the UK is one of the world's busiest sectors of airspace. However the following sample flight tracks only include operations for London Luton Airport and overflights from other airports have been omitted for clarity.

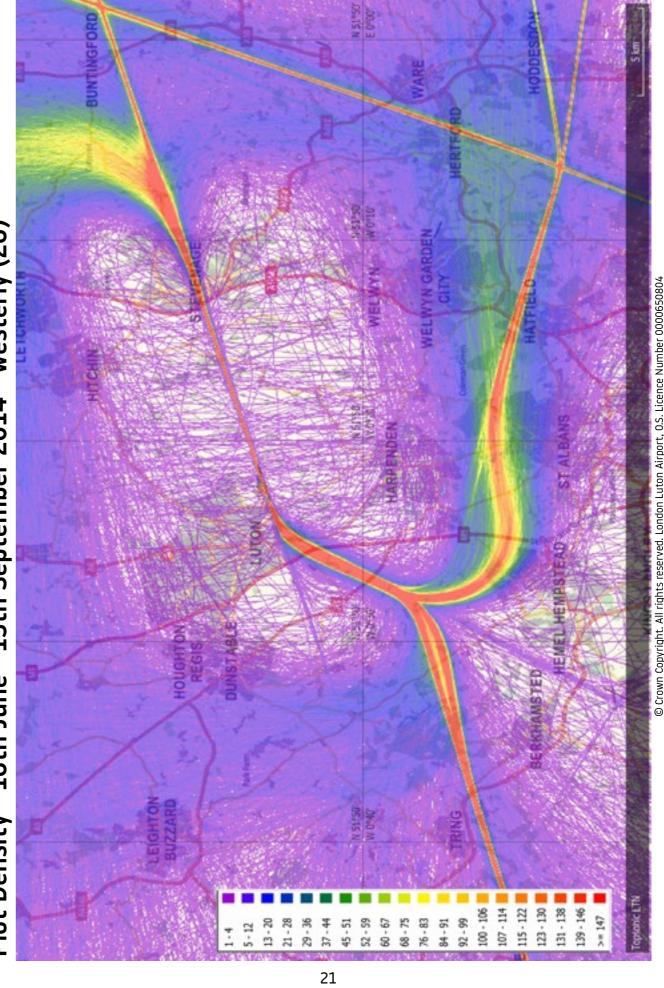












# 15th September 2014 - Easterly (08) Plot Density - 16th June -

# Aircraft Noise

Noise is generally defined as unwanted sound. Although it is recognised that noise perception is very subjective, there are a number of internationally recognised terms to describe and measure aircraft noise. Most airport related noise is created by aircraft approaching, taking-off and taxiing to and from the runway. The management and control of noise continues to be a major element of the Airport's policy to constantly seek to minimise and mitigate our environmental impact.

## How is noise monitored?



People who live close to airports or under flight paths can often feel strongly about the disturbance to their lives from noise. Effects of noise include general distraction, speech interference and sleep disturbance which can lead to annoyance and complaints.

At LLA monitoring is provided by the Topsonic Aircraft Noise and Track Monitoring System. This system is designed to monitor air traffic within a radius around the Airport (set at around 25 miles), and generally up to an altitude of 12,000ft. It downloads noise data from three fixed noise monitors located 6.5km from the aircraft start of roll, at either end of the runway within the neighbouring communities. This method records the maximum noise level at a point, rather than the way it is spread over the surrounding area. The Topsonic System was operational for 100% of the time during 2014.

New features and system enhancements continue to improve the functionality and capabilities available to the Airport Environment Office.

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/



## Noise violation levels



In 2014 LLA operated 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 violations levels are exceeded. These violation limits encourage airlines to operate modern and quieter aircraft types. The noise violation level during the 2014 night period was 82 dB(A), and 94 dB(A) during the day.

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

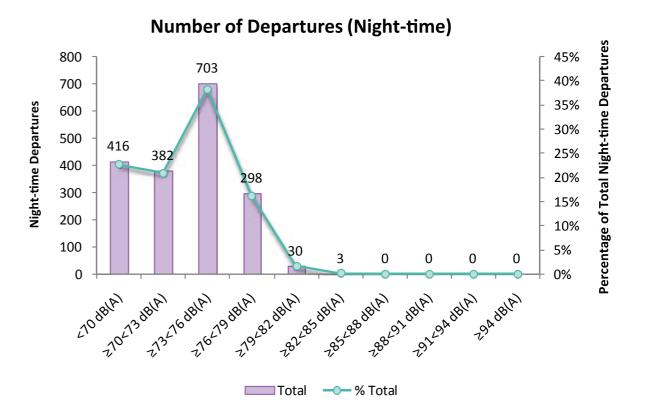
### **Number of Departures (Daytime)** 25,000 60% 22.303 50% 20,000 Departures 40% 15,000 30% Daytime 10,000 20% 5,000 10% 13 21 0 1 273276dB(A) 716219dBlA 2794824812 \_\_\_\_Total ── % Total

During the daytime 99% of correlated departing aircraft recorded maximum noise levels less than 79dB(A), with 85% registering below 76dB(A) and 32% of correlated daytime departures registering below 73dB(A). Throughout the year 386 correlated daytime departures (1%) registered maximum noise levels above 79dB(A), and there was only 1 daytime noise violation.

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The diagram below represents maximum night-time noise levels recorded by departing aircraft at the fixed noise monitoring terminals between the hours 23:00 and 06:00 local time, Monday to Saturday and from 23:00 until 07:00 on Sunday.

During the night 98% of correlated departures recorded maximum noise levels below 79dB(A), with 82% below 76dB(A) and 44% of correlated night departures registering below 73dB(A). During the year 33 correlated night departures (2%) registered maximum noise levels above 79dB(A) with 3 departures exceeding the night noise violation level of 82dB(A).



# Noise violations during 2014

There was one violation of the daytime noise level in 2014, and a total of three violations of the 82dB(A) night noise violation level (details below), compared to four night noise violations in 2013.

	Date / Time (Local)	Aircraft Type	Noise Level	Penalty
Daytime	09/07/2014 09:09 hrs	GLF3 (Executive Jet)	94.9 dB(A)	400% of runway charge
	01/05/2014 02:18 hrs	MD83 (Special Charter)	82.6 dB(A)	300% of runway charge
Night-time	01/05/2014 02:30 hrs	MD83 (Special Charter)	84.4 dB(A)	300% of runway charge
<b></b>	12/11/2014 23:47 hrs	FA7X (Executive Jet)	82.5 dB(A)	300% of runway charge

All fines are passed to the London Luton Airport Community Trust Fund, further details of which can be found at

http://www.london-lutoninthecommunity.co.uk/content/1/3/community-trust-fund.html

# Noise Contours

Since 1989 the preferred measure 16th June and 15th September. In the runway usage which in turn takes account of all the aircraft arrivals, that occurred in that impact are dependent on changes in terms of the LAeg averaged over departure routes flown. Changes in UK. the 16 hour period from 0700-2300 the size and shape of the contours for an average day between the can also depend on differences in

of aircraft noise has been the addition, London Luton Airport also depends on the relative proportion A-weighted equivalent noise level produces contours for the 8 hour Leq. This indicator takes account of night period between 2300 and all the noise energy that occurs over 0700 for an average summer night a particular time period and thus in terms of the LAeg, 8h indicator.

of westerly and easterly modes of operation, determined by the prevailing wind direction.

The noise contours for the Airport movements, both departures and Year on year changes in the noise are produced using INM software (the Integrated Noise Model) period. In the UK the noise impact in the number and type of aircraft version 7.0d, which is the method of an airport is primarily described that used the Airport and also the used by many other airports in the

# Annual noise contours summer 2014

Work has been completed on the production of the annual noise contours for summer 2014 covering the standard summer period from 16th June to 15th September inclusive, using the latest version of INM version 7.0d.

1	Contour Area (km²)					
Daytime	1984	1999	2013	2014	Difference 2013-2014	2015 (forecast)
>72	1.63	1.5	0.8	0.9	+0.1	0.9
>69	2.80	2.5	1.3	1.4	+0.1	1.5
>66	4.86	4.4	2.3	2.7	+0.4	2.9
>63	9.10	7.3	4.8	5.5	+0.7	7.8
>60	17.18	11.8	8.4	9.3	+0.9	9.6
>57	31.52	19.6	13.8	15.8	+2.0	16.5

Considering the 57 dB LAeq, 16h daytime noise contour there is an increase in area of approximately 14% when comparing the 2014 contour with the 2013. This is largely due to the 8% increase in movement numbers. The daytime movements increased from 23,649 in 2013 to 25,616 in 2014.

The corresponding 2015 contour is forecast to grow by 4% compared to the 2014 contour, largely due to a forecast 5% increase in movement numbers.

•	Contour Area (km²)					
Night-time	1984	1999	2013	2014	Difference 2013-2014	2015 (forecast)
>72	0.79	1.1	0.4	0.4	0.0	0.4
>69	1.39	1.8	0.6	0.6	0.0	0.7
>66	2.42	3.0	0.9	1.0	+0.1	1.1
>63	4.01	5.2	1.5	1.7	+0.2	1.8
>60	7.06	8.3	2.9	3.4	+0.5	3.8
>57	13.05	13.2	5.7	6.5	+0.8	6.9
>54	24.48	21.6	9.8	11.3	+1.5	11.7
>51	44.92	36.0	17.2	20.0	+2.8	20.5
>48	85.04	60.6	30.7	35.2	+4.5	36.6

Considering the 48 dB LAeq, 8h night-time noise contour there is also an increase of approximately 15% when comparing the 2014 contour with 2013 contour. This is largely due to the 21% increase in movement numbers. The night-time movements increased from 3,711 to 4,490.

The corresponding 2015 night contour is forecast to grow by 4% compared to 2014, despite a decrease in movement numbers of 5%. This is because the number of departures at night, particularly those by passenger jets is forecast to increase in 2015, and departures contribute more per aircraft than arrivals to the contour

The 2014 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.

# **Contour population counts**

The population counts for this year were calculated using the CACI Ltd, 2013 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.

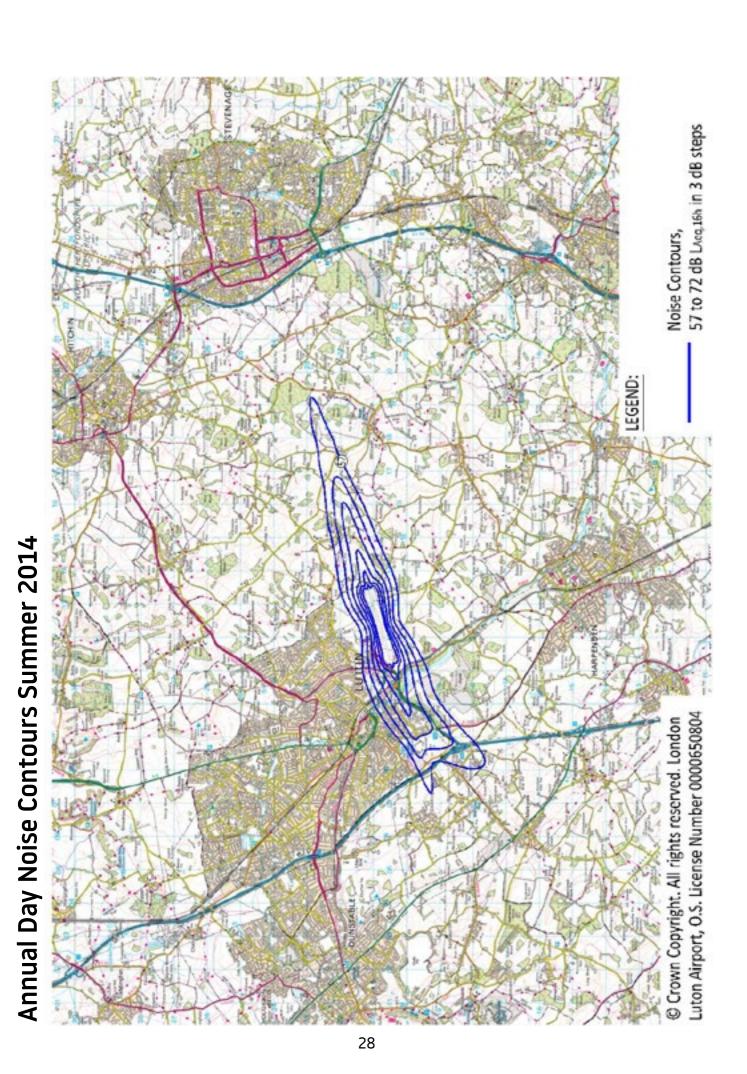
L Aeq, 16 hour	20:		2014	
Daytime	Dwellings	Population	Dwellings	Population
>72	0	0	0	0
>69	0	0	0	0
>66	3	6	4	14
>63	383	1,064	483	1,281
>60	1,156	3,164	1,307	3,552
>57	2,975	7,128	2,905	7,290

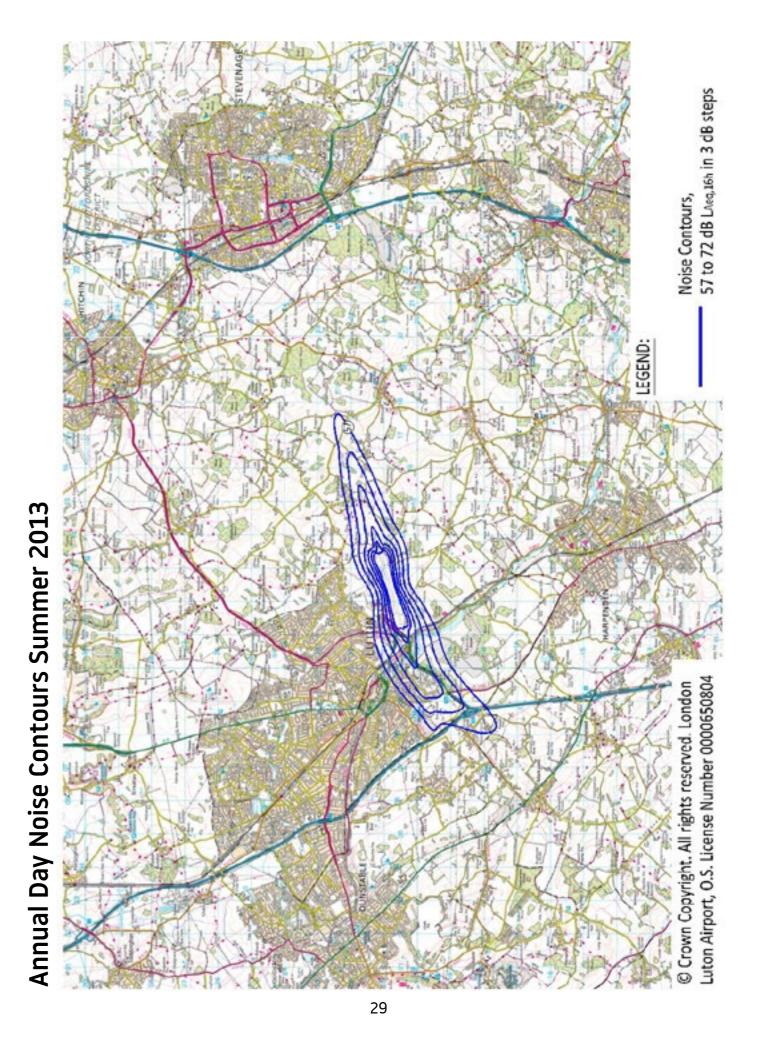
When looking at the daytime results there are generally increases in the number of dwellings and the population within the contours when comparing 2014 with 2013. For the 57 dB Laeq, 16h contour there is a small decrease of around 2% in the number of dwellings despite the contour being larger. The higher value contours show larger increases in line with the increase in contour area.

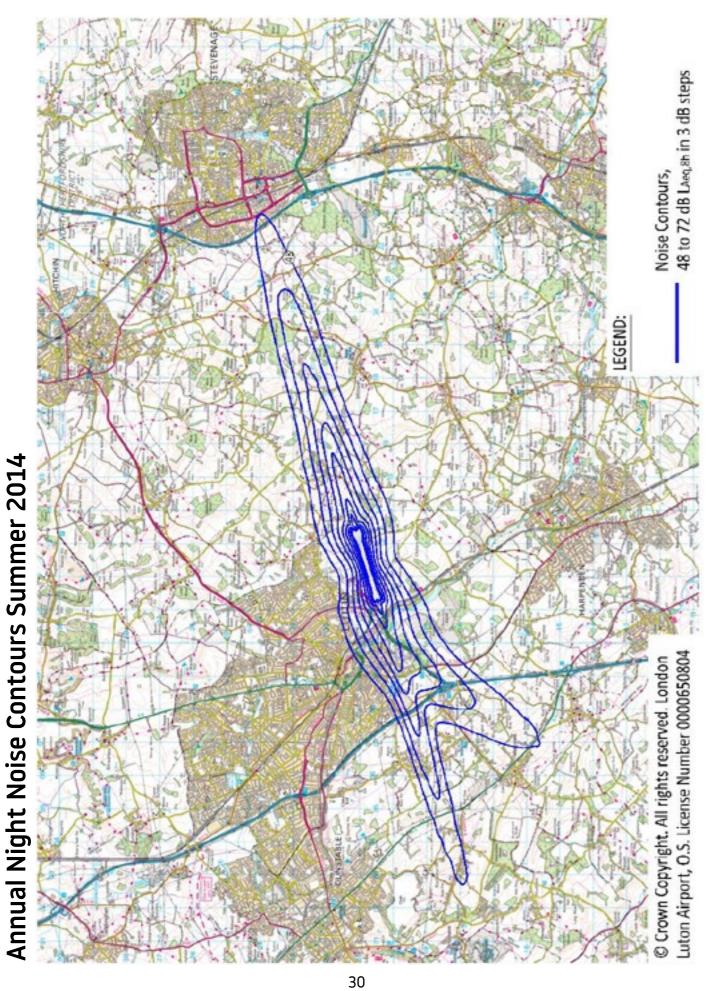
L <sub>Agg 8 hour</sub>	20	13	2014		
Night-time	Dwellings	Population	Dwellings	Population	
>72	0	0	0	0	
>69	0	0	0	0	
>66	0	0	0	0	
>63	1	2	0	0	
>60	10	27	136	389	
>57	540	1,478	660	1,790	
>54	1,619	4,377	1,624	4,442	
>51	3,577	8,475	3,717	9,139	
>48	6,390	14,974	6,583	16,040	

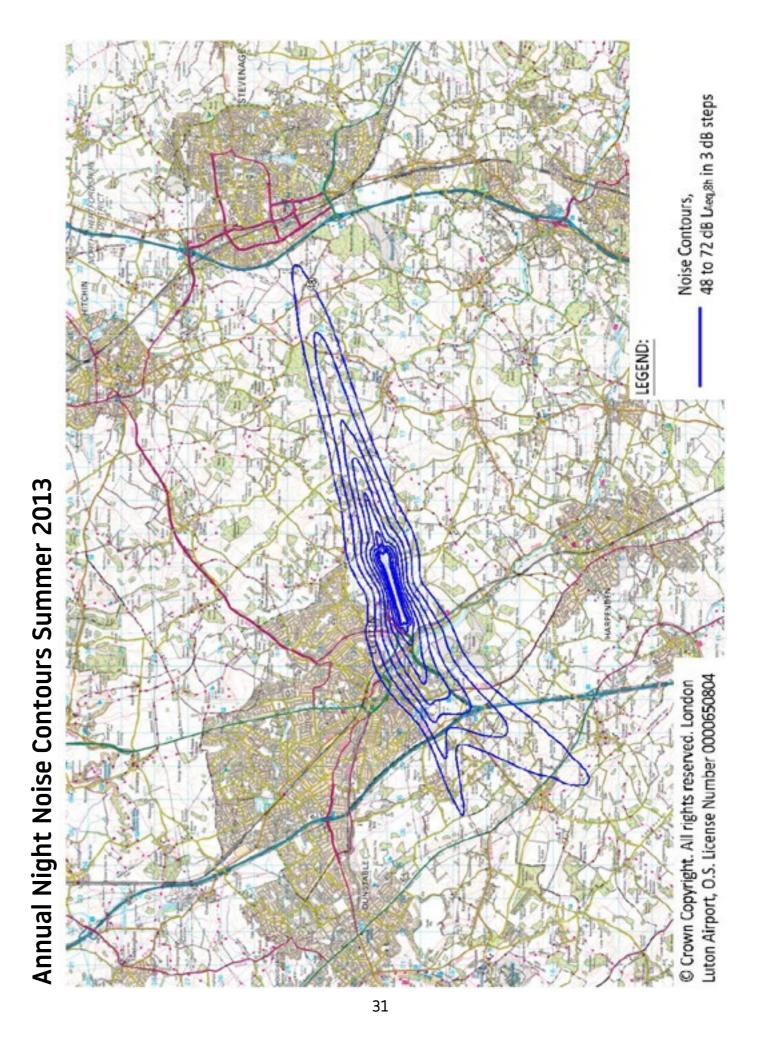
For the night-time contours there are increases in the numbers of dwellings and the population within the contours when comparing 2014 with 2013. For the 48 dB LAeq, 8h contour the increase is around 3% for the number of dwellings and around 7% for the population. This is mainly due to the increase in movements.

Please note in the above tables the results for households and resident populations are cumulative.









# **Annual noise contours 2014**

Again using the latest INM software (version 7.0d) the annual Lden noise contours for 2014 have been produced in accordance with London Luton Airport's Noise Action Plan. 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 2014, with a 10dB 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 2014.

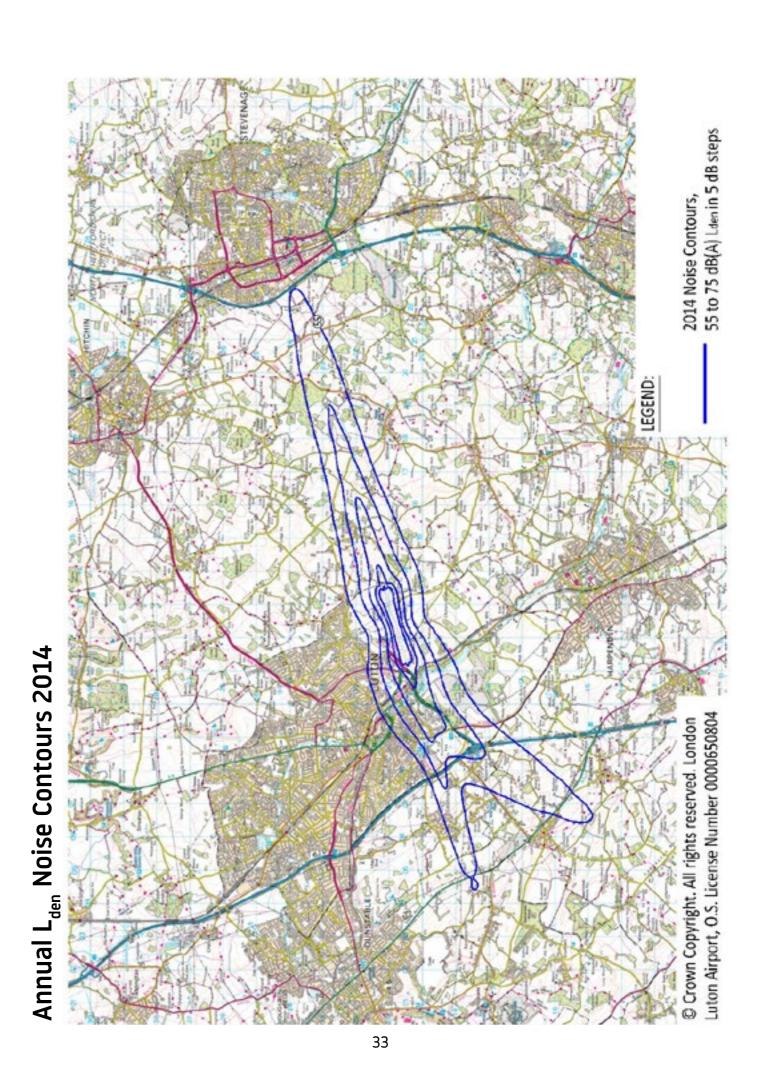
### **Annual Lden Noise Contour Results**

		rea (km²) Population		ation¹ Dwellin		lings²
Value (dB(A) L <sub>den</sub> )	2013	2014	2013	2014	2013	2014
>75	0.7	0.7	0	0	0	0
>70	1.6	1.6	0	0	0	0
>65	5.0	5.3	1,100	1,100	450	400
>60	12.4	13.1	5,200	5,600	1,900	1,950
>55	31.8	33.6	14,800	16,400	6,150	6,150

### **Annual Lnight Noise Contour Results**

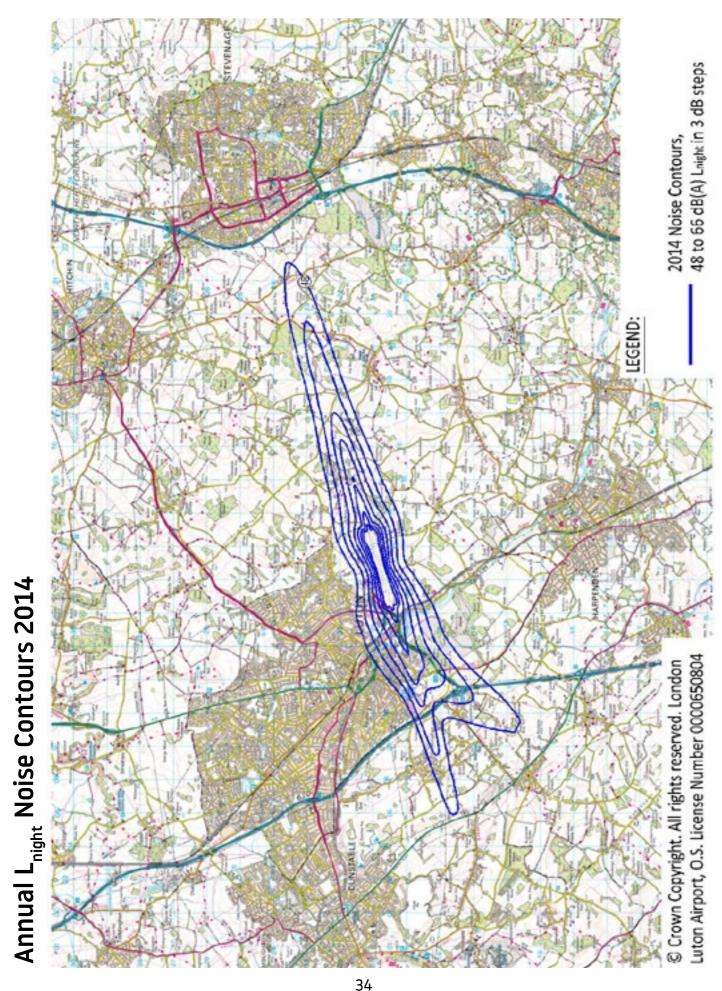
Contour	Contour Contour A		rea (km²) Population¹		Dwellings <sup>2</sup>	
Value (dB(A) L <sub>den</sub> )	2013	2014	2013	2014	2013	2014
>66	0.8	0.8	0	0	0	0
>63	1.2	1.3	0	0	0	0
>60	2.2	2.3	0	0	0	0
>57	4.6	4.7	800	800	300	350
>54	8.1	8.3	2,400	2,500	900	900
>51	14.2	14.9	6,100	6,300	2,350	2,250
>48	24.6	25.7	11,900	12,700	4,900	4,750

Please note that in Annual Summer contours and Annual Contours the number of dwellings has fallen, but population has risen. This kind of effect happen from time to time



<sup>&</sup>lt;sup>1</sup> - Population counts rounded to nearest 100

<sup>&</sup>lt;sup>2</sup> - Dwelling counts rounded to nearest 50



# Correspondence and Complaints

We aim to investigate, log and respond to all correspondence in a timely and systematic manner, preferably within 10 working days. Where this is not possible an acknowledgement is sent by post within 5 working days to those who contact us. E-mail correspondence will automatically receive an acknowledgement by return.

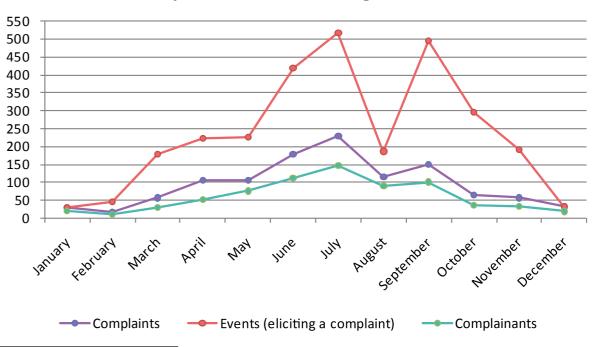
Complaint statistics can be extremely difficult to interpret as people's tolerance of noise and their perception of what causes annoyance varies widely. It is highly subjective and differs between neighbours experiencing the same levels of noise.

### Total complaints relating to LLA aircraft operations

	2013	2014
Total No. of Complaints relating to LLA aircraft operations	1,022	1,146
No. of Complainants	379	457
No. of Events (eliciting a complaint)	2164 (1,606*)	2,836 (1,200**)
Average No. of Complaints per Complainant	2.7	2.5
Average No. of Events per Complainant	5.7 (4.2*)	6.2 (2.6**)
Average No. of Events per Complaint	2.1 (1.6*)	2.5 (1**)
No. of Aircraft Movements per Complaint	96	91
No. of Aircraft Movements per Event	45 (61*)	36 (87**)

During 2014 a total of 1,146 complaints (on average 3 complaints per 24 hours) relating to LLA aircraft operations were received, compared with 1,022 in 2013. The figure below shows the complaints statistics throughout 2014. More complaints were received in the summer months, correlating with an increase in aircraft activity.

### **Complaint Statistics throughout 2014**



<sup>\* -</sup> Figures excluding 558 events reported by just one resident of Harpenden

<sup>\*\* -</sup> Figures excluding 1,636 events reported by three individuals, one resident in Harpenden, one resident in Kensworth and one resident in St Albans

457 **Individuals** reported concerns to the Airport Environment Office during 2014

312 **Individuals** (68%) contacted the Airport only once during 2014

173 **Individuals** (38%) reported concerns for the first time

During 2014, 768 events were reported by one individual in Harpenden but, in agreement with the LLACC, these events are no longer included in statistics although a total of 23 complaints from this complainant, reporting general disturbance and frequency (both day and night), have been incorporated in all statistics.

> 1,146 Complaints relating to LLA aircraft operations

Complaints not attributable to LLA traffic, including **21 Complaints** relating to non-LLA helicopters operating to/from other airfields

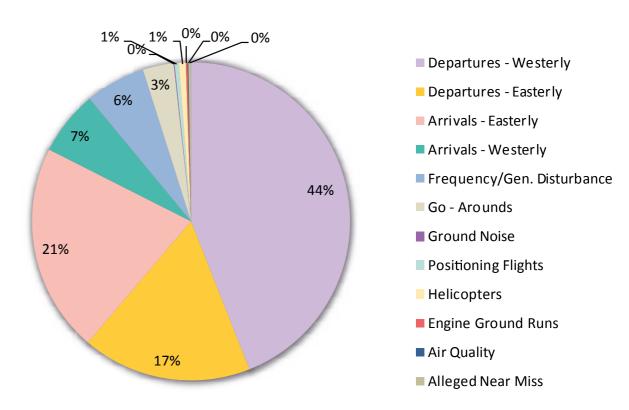
23 Complaints reported disturbance relating to over-flights to/from other airports during the **Night Period** 

92 Individuals reported night noise in 2014 (compared to **163** individuals in 2013)

436 **Complaints** concerning night noise disturbance from LLA operations

17% of Night **Disturbance** was from just two individuals, in Kensworth and St. Albans

# **Nature of Disturbance**

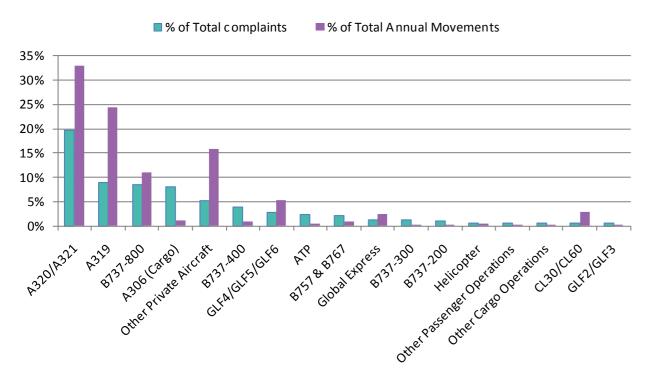


Within the 504 flights following off-airways flight airways flight routes. routes.

complaints Of the 197 complaints attributed Whilst 189 of the 243 complaints concerning westerly departures to easterly departures 35 were of concerning easterly arrivals 158 were of a general nature, 314 a general nature, 122 related to reported general disturbance, 55 reported specific aircraft following aircraft following the Compton related specifically to aircraft on the Match/Detling route, 13 related heading, 26 related to aircraft on approach to land from the Lorel to aircraft on the Compton route Olney flight route and 11 to aircraft Reporting Point. and 13 related to aircraft following on the Match/Detling heading. the Olney heading. Six other A further 3 complaints involved complaints involved positioning positioning flights following off-

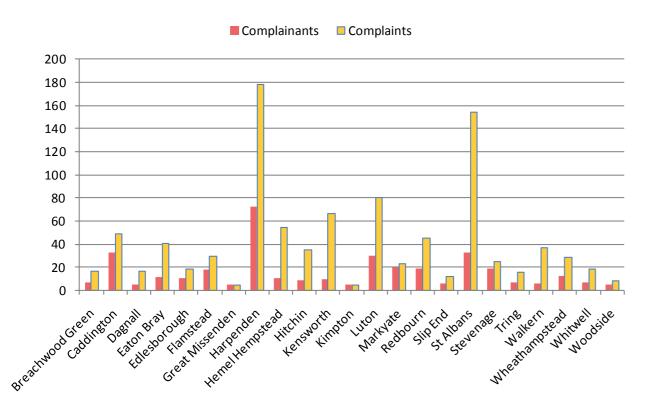
# Complaints by aircraft type

Of the 1,146 complaints relating to LLA aircraft operations registered during the year 795 complaints (69%) were clearly correlated to a specific aircraft type, although many complaints were of a general nature. The diagram below shows aircraft types generating complaints.

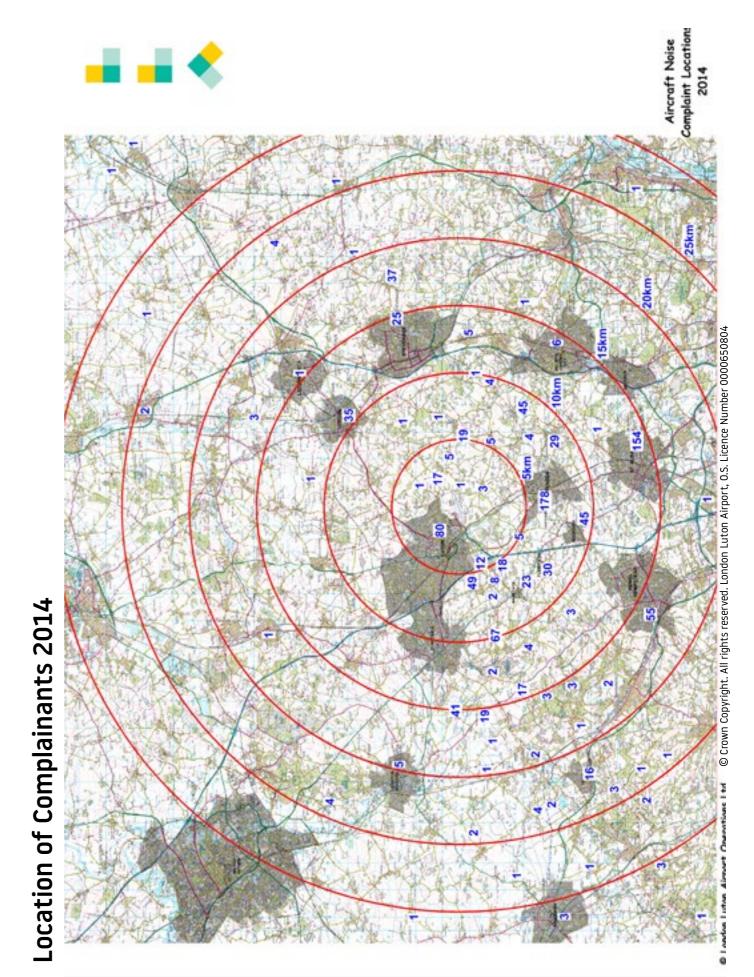


It can be seen that the majority of the complaints are related to the quietest aircraft. This is mainly due to the frequency of these quieter, modern aircraft types compared to the small percentage of older generation aircraft.

# **Location of Complainants (5+)**



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# **Communication method**

The following table shows the mode of communication used to contact London Luton Airport regarding noise.

Communication Method	% of Total Complaints
E-mail	72%
Telephone	27.7%
Letter	0.3%

Any concerns relating to aircraft operations associated with London Luton Airport can be reported to the Airport Environment Office by the following means:

Postal Address Airport Environment Office

London Luton Airport Navigation House Airport Way

Luton Beds LU2 9LY

Direct Telephone (01582) 395382 (24 hours)

Direct email\* noise@ltn.aero

<sup>\*</sup> 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 Airport Environment Office for logging, investigation and response.



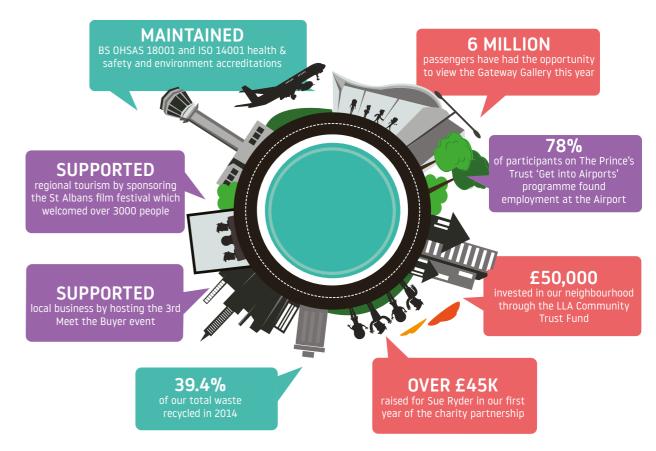
# Community Relations

Through the Airport Consultative Committee, which meets each quarter, London Luton Airport maintains a close working relationship with representatives of its local authorities and resident groups. Information on the Airport Consultative Committee including meeting minutes and its representatives can be found at the following link:

### http://www.llacc.com/

Our five year Community Relations Strategy forms part of LLA corporate social responsibility programme and sets out how we will facilitate community development and meet the needs of key stakeholders. Initiatives are delivered by the Airport in collaboration with key community partners. In 2014 we made eight commitments to ensure that we continued to play a positive role in our local community. The following figure summarises the progress made against these commitment during the year.

# Community engagement strategy achievements



# Employment

Employment at and surrounding London Luton Airport 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, and 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, representing nearly 99% of economic activity (source: ONS website www.statistics.gov.uk).

An initial list was received from London Luton Airport of companies within its 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

Fourteen companies which appeared on the list but not the IDBR had imputed figures gained from the Airport operator and/or planning applications.

# 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	500
Administrative and Support Service Activities	1,800
Financial and Insurance Activities	<100*
Manufacturing	1,400
Professional, Scientific and Technical Activities	<100*
Public Administration & Defence; Compulsory Social Security	<100*
Real Estate Activities	<100*
Transportation and Storage	4,400
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	<100*
Grand Total	8,500

<sup>\* -</sup> Figures have been suppressed where there are less than three companies in a given Section and/ or employment in that sector is less than 100 in accordance with the regulations covering the use of IBDR data.

There are approximately 8,500 employees working in the vicinity of the Airport, a slight increase of 1% compared to the previous year. (Due to confidentiality reasons we are bound by the Office for National Statistics protocols to round to the nearest 100 when reporting IDBR figures)

# **Employment by working pattern**

The IDBR provides employment figures by full and part time working pattern. The total full time figures (where a breakdown by full/part time was provided) was 7,000 employees. This was a slight increase from the previous year's figures. The figure for part time employees was 1,200 which was a slight decrease from last year's figures.

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 LLA	81.3%	14.1%
Luton UA	76.9% (confidence limit 3.1)	23.1% (confidence limit 3.1)

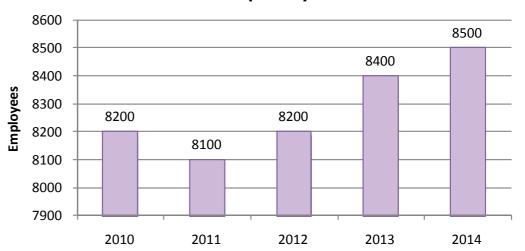
Source for Luton UA Figures: Annual Population Survey, Office for National Statistics Oct 2013 – Sept 2014, latest data. Figures are percentages of those in employment.

Full and part time working patterns in the vicinity of the Airport differs from that found within Luton as a whole, with the Airport having an increased proportion of full time workers.

### Time series

The following figures from 2010 to 2014 show the estimated employment levels in the vicinity of the Airport

# Estimate of Employment in the vicinity of London Airport by Year



Source: AMR Employment Surveys 2010- 2014

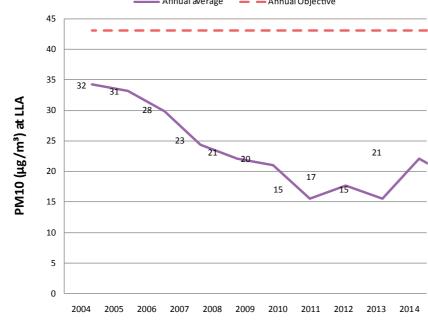
# Air Quality

London Luton Airport has been monitoring air quality in and around the Airport environment since 2003. Air quality data collected at LLA is integrated into a monitoring programme incorporating data collected by the surrounding Local Authorities, with a monthly report available to view online at www.ukairquality.net The parameters we measure are  $PM_{10}$  and  $NO_2$ .

# PM<sub>10</sub> (Particulates measuring 10μm or less)

PM<sub>10</sub> is one of the main contributors to reduced ambient air quality. Particulate matter describes fine particles including dust and soot which are suspended in the air. When you breathe in these particles they can stick to the surface of your lungs, and in areas of high pollution can cause respiratory health problems. Local sources include emissions from vehicles and aircraft engines, wear of brakes, tyres, and construction debris.

 $PM_{10}$  is monitored from one location in the middle of the Airport site. The graph shows that the readings have remained well within the annual mean local air quality objective of  $40\mu g$  m³, and are decreasing over time. There were 6 occurrences of moderate pollution exceeding the daily mean of  $50 \mu g$  m³, which is well within the



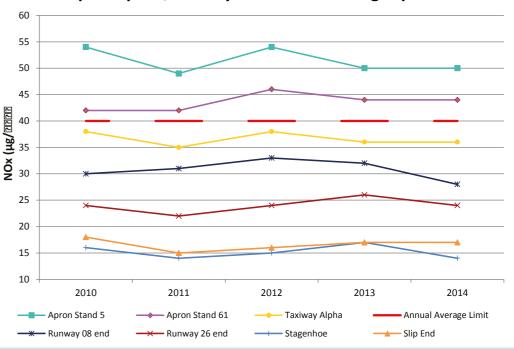
objectives laid out in the Air Quality (England) Regulations 2000 (as amended).



# Nitrogen Dioxide (NO<sub>2</sub>)

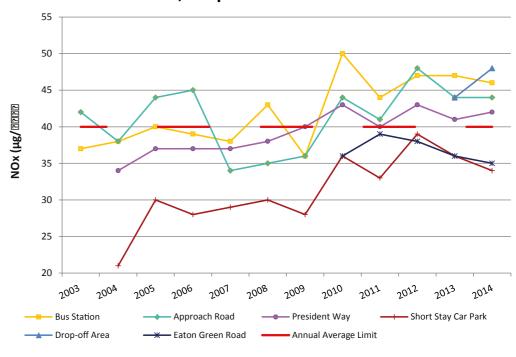
 $NO_2$  in high concentrations can cause a wide variety of health and environmental impacts. The gases are produced from the combustion of fuels such as diesel and aviation fuel.  $NO_2$  is currently measured from 14 locations around LLA. The annual mean local air quality objective of  $40\mu g$  m<sup>3</sup> also applies to  $NO_2$ .

### Airport apron, runway and under the flight paths



 $\mathrm{NO_2}$  levels at the closest residential receptors to the Airport, and also along the aircraft flight paths are significantly below the the objective level laid out in the Air Quality (England) Regulations 2000 (as amended). Levels monitored at the roads around the Airport, in the car parks and on the apron are a little higher, with some exceeding the objective level. This illustrates that vehicle movements have more of a detrimental impact on air quality than aircraft around LLA.

### Roads, car parks and bus station



# Surface Access

LLA aims to improve access to London Luton Airport, particularly by public transport in order to reduce the contribution that journeys make to total airport-related CO2 emissions and also to air pollution. LLA's current Airport Surface Access Strategy runs from 2012-2017, with short and long term targets and action plans to encourage more sustainable travel amongst airport passengers and employees. These targets are being monitored regularly, as part of the wider Local Transport Plan (LTP) monitoring framework.

# **Modes of Transport**

### Passengers transport mode share (CAA Data)

Luton.

The table shows the weighted to achieve 40% by 2017.

The Civil Aviation Authority (CAA) In common with other airports. CAA data for 2009 to 2013. The undertakes continual passenger LLA uses this survey data to assess CAA statistics suggest that 32% surveys at many of the major trends in passenger 'modal shift' of airport passengers chose to use airports in the UK, including London from private to public transport. public transport in 2013. LLA aims



%	2009	2010	2011	2012	2013
Private Car - Drop Off	28	27	27	27	28
Private Car - Park	27	24	23	23	23
Rail	17	17	15	17	16
Bus/Coach	14	15	16	16	16
Taxi	14	15	18	17	17

### Staff transport mode share

is as important consideration table below. as employees making a more

LLA aims to reduce the proportion sustainable travel choice will give of staff travelling alone by car to daily results due to the frequency and from London Luton Airport of their need to commute to work. to 60% or lower by 2017. Whilst Staff travel surveys are undertaken employee travel does not generate once every 2 years, and the results as many trips as passengers, it since 2010 are presented in the

<b>%</b>	2008	2010	2012	2014
Drive alone	72	66	66	62
Car share	10	12	8	11
Taxi	2	1	1	0
Motorcycle	1	1	1	1
Rail	5	5	5	10
Bus/Coach	6	7	9	8
Cycle	1	2	2	2
Walk	3	5	6	7

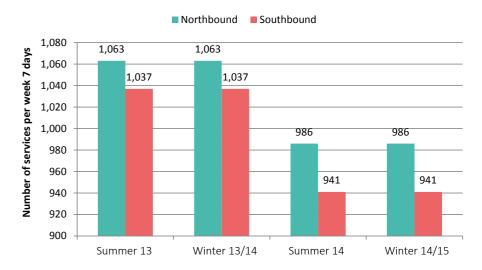
# **Public Transport Services**

Scheduled train services from Luton Airport Parkway Station

### **Train Services**

The graph shows the number of scheduled train services per week from Luton Airport Parkway Station appear to have dropped from the previous year, although it is believed this was due to an error in the 2013 calculation.

During this period, the franchise changed from First Capital Connect to Govia Thameslink Railway.



The table below represents passenger numbers by ticket type that travelled through Luton Parkway Station for the last 4 years. This illustrates changes of patronage to Parkway Station and possibly modal change. The figures have been taken from the Office of Rail and Road 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 using Luton numbers Parkway Station. In 2013 the Northern Entrance to the station was opened, providing

Tickte Type	2010-11	2011-12	2012-13	2013-14
Full tickets	1,033,698	1,241,776	1,252,397	1,283,612
Reduced/concession	840,880	740,064	825,124	915,187
Sub-total	1,874,578	1,981,840	2,077,521	2,198,799
Season tickets	437,542	447,764	460,614	468,454
Total	2,312,120	2,429,604	2,538,135	2,667,253

access from Kimpton Road. Later paragraphs will refer to changes to bus services that may influence these

### **Bus and Coach Services**

Some National Express services Within this monitoring period, make scheduled stops within the Greenline service 757 has resumed patronage between the Town Luton Railway Station. It is also Centre and the Airport.

January 2017, and all coaches by and Victoria Station. 1st January 2020. These vehicles are gradually being phased in, with many routes offering accessible services already.

All buses must comply with the a reduction in the number of buses

The Arriva 'A' service which operates along a fast and dedicated route Town Centre, also allowing for a direct service to the Airport via from Houghton Regis/ Dunstable to the Airport, has made a number noted that between Summer 2014 of changes to its timetable over and the Winter schedule, there was the period and extended operation of its services commencing at accessibility regulations by 1st on service A1 between the Airport 04:30 until midnight, potentially providing staff with an alternative to car travel.



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.

### Bus and Coach Services From London Luton Airport

Local	Summer 13	Winter 13/14	Summer 14	Winter 14/15
Luton Railway Station	319	586	460	483
Others	1,830	1,577	1,643	1,651
Sub-total	2,149	2,163	2,103	2,134

National	Summer 13	Winter 13/14	Summer 14	Winter 14/15
Central London	454	833	1,152	1,043
Others	700	1,015	567	574
Sub-total	1,154	1,848	1,719	1,617
Total	3,303	4,011	3,822	3,751

Airport - Airport Link	Summer 13	Winter 13/14	Summer 14	Winter 14/15
Birmingham	91	91	84	84
East Midlands	0	91	35	28
London Gatwick	70	203	77	77
London Heathrow	154	336	189	189
London Stansted	182	133	126	126
Manchester	7	7	14	14
Total*	504	861	525	518

This information represents a general guide to the number of services based on the information available from the various bus operators.

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## **Road Traffic and Car Parks**

The information contained in this have remained at the 2013 level. section is based on traffic counts. The table and graph below show should be noted that this occurred conducted at 8 sites during the an increase in 12hr/5day traffic during construction of the J10a period 12th-18th September 2014. flows between 2013 and 2014 on improvement works. These works This period is comparable with 2 of the 8 monitored roads, the will also have contributed to previous summer traffic counts and highest increase being +1,040 the increase in traffic on Lower avoids any periods when significant (+10.0%) on Vauxhall Way (south). Harpenden Road resulting from changes in traffic characteristics. The most significant decrease drivers seeking to avoid the J10a can occur. Overall, traffic flows in traffic was -1,452 (-21.5%) on works.

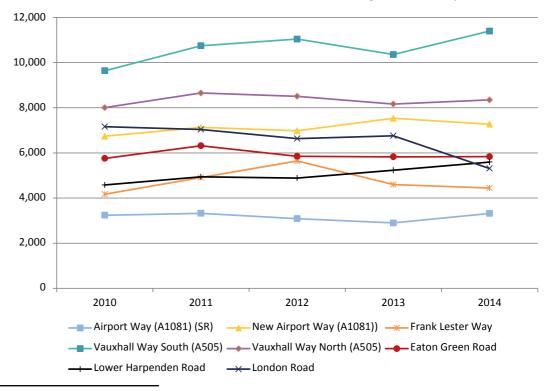
Lower Harpenden Road. However, it

### Summer 2009 - 2014 Traffic Counts (Average 12 hrs/5 day)

	Map ref	2010	2011	2012	2013	2014
Airport Way (A1081) (SR)	599	3,237	3,323	3,088	2,897	3319
New Airport Way (A1081))	925	6,735	7,127	6,979	7,532	7268
Frank Lester Way	445	4,170	4,908	5,642	4,597	4445
Sub-total		14,142	15,358	15,709	15,026	15,032

	Map ref	2010	2011	2012	2013	2014
Vauxhall Way South (A505)	520	9,638	10,746	11,039	10,355	11395
Vauxhall Way North (A505)	603	8,005	8,652	8,505	8,164	8348
Eaton Green Road	677	5,755	6,317	5,849	5,826	5835
Lower Harpenden Road	106	4,576	4,942	4,885	5,232	5594
London Road	393	7,163	7,037	6,634	6,759	*5307
Sub-total		35,137	37,694	36,912	36,336	36,479
Total		49,279	53,052	52,621	51,362	51,511

Summer 2010 - 2014 Traffic Counts - average 12 hrs/5 day



<sup>\* -</sup> 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.

<sup>\* -</sup> Site impacted by J10a works

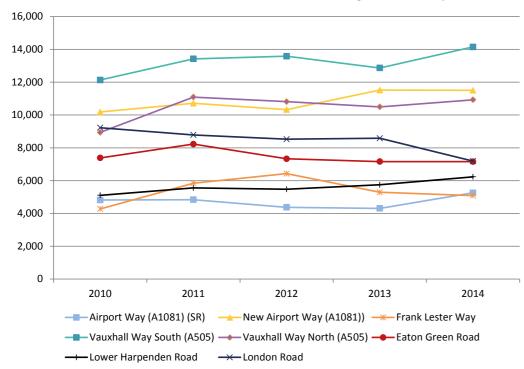
For the 24-hour week (24/7), the table and graph below reveal similar patterns to the 12hr/5day traffic counts. The highest increase in traffic is +1,281 (10.0%) on Vauxhall Way (south), while the most significant decrease in traffic is -1,392 (-16.2%) on Lower Harpenden Road.

### Summer 2009 - 2014 Traffic Counts (Average 12 hrs/7 day)

	Map ref	2010	2011	2012	2013	2014
Airport Way (A1081) (SR)	599	4,818	4,840	4,374	4,309	5,256
New Airport Way (A1081))	925	10,185	10,714	10,330	11,518	11,503
Frank Lester Way	445	4,275	5,842	6,426	5,289	5,086
Sub-total		19,928	21,396	21,130	21,116	21,845

	Map ref	2010	2011	2012	2013	2014
Vauxhall Way South (A505)	520	12,131	13,421	13,582	12,865	14146
Vauxhall Way North (A505)	603	8,939	11,093	10,813	10,496	10924
Eaton Green Road	677	7,383	8,226	7,330	7,161	7155
Lower Harpenden Road	106	5,104	5,555	5,475	5,746	6232
London Road	393	9,225	8,788	8,523	8,582	*7190
Sub-total		42,782	47,083	45,723	44,850	45,647
Total		62,710	68,479	66,853	65,966	67,492

### Summer 2010 - 2014 Traffic Counts - average 12 hrs/7 day



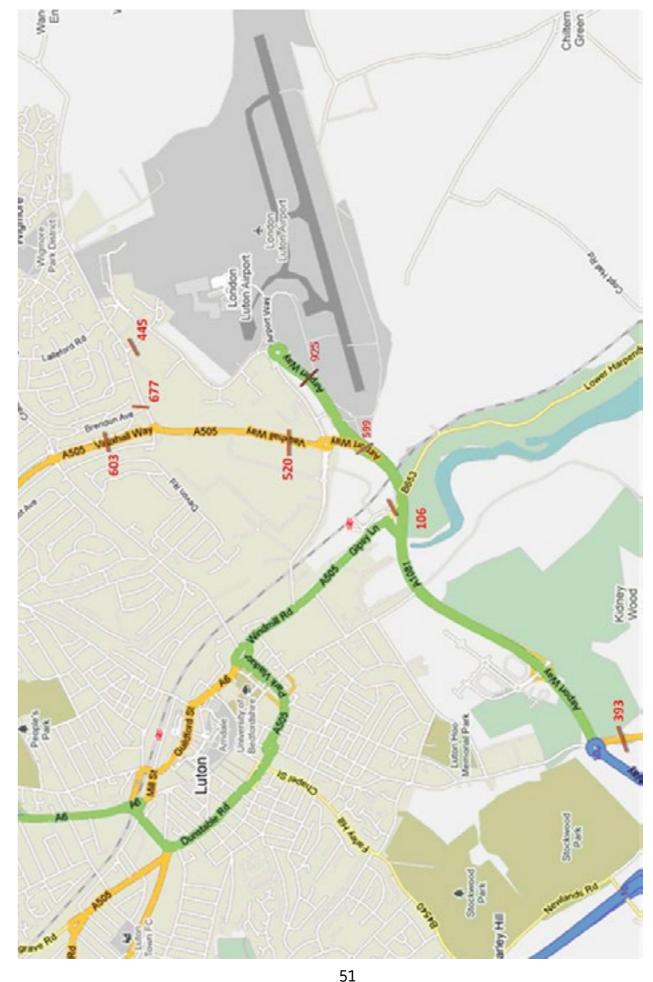
Traffic flow along Airport Way (SR) has consistently decreased over the five years to 2014, which is expected given that Airport Way (new) opened in 2009. However, it is possible that this route may start to show a slight increase from this period onwards as it is now part of the Luton Dunstable Busway route to the terminal, although part of the increase indicated by the traffic counts was probably due drivers avoiding the J10a works.

This data indicates that Vauxhall Way axis continues to accommodate the highest traffic volumes 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.

50

Overall, traffic flows have shown a small increase of 2% between 2013 and 2014. See the map for indicative location of these observation points.

### Summer 2009 - 2014 Traffic Counts (Average 12 hrs/7 day)



<sup>\*\* -</sup> Site impacted by J10a works

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

Spaces	Area m2
1,556	39,373
2,780	65,000
3,400	72,150
7,736	176,523
3,835	97,270
11,571	273,793
	1,556 2,780 3,400 7,736 3,835

Whilst the Surface Access Strategy seeks to encourage passengers and staff to travel to LLA by sustainable means, there will always be some passengers and staff who choose to travel by car. Policies LLA1 and LLA2 of the Borough of Luton Local Plan set out the criteria for airport car parking, both on and off site.

Staff and passenger car parking capacity has again remained unchanged during 2014.

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

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

Operator	Spaces*	Area ha
Airpaks (Slip End)	3,510*	5.97
Paige Airport Parking ( Slip End)	1,600*	2.49
Central Car Storage	264*	0.56
Thurlow Nunn Kimpton Road**	125	1.11
Latimer Road**	200	0.42
Total	5,710	10.55

# **Sustainable Travel Improvements during 2014**

During 2014 a number of improvements were made to surface access. In September 2014 GTR took over the Thameslink franchise, and have been working with LLA on a number of improvements to rail access. Branding and way-finding has been improved in the terminal, at Luton Airport Parkway and at St. Pancras to direct passengers to and from London Luton Airport by train. GTR has also rolled out a marketing campaign dedicated to promoting the use of the Thameslink to get to LLA. Ticketing machines have been introduced in arrivals and additional early morning services have been confirmed for introduction in 2015.

EasyBus launching a new bus service from London Luton Airport to London Liverpool Street in October 2014. This route replaced their service to Baker Street and comprises of 120 services per day in the summer and 106 services per day in the winter.

LLA also commissioned two assessments to be undertaken during 2014, both of which were shared with relevant bus and coach operators. One looked at potential service improvements to Hemel Hempstead, and the other looked at areas not served by buses along the Luton and Dunstable Guided Busway.

Through the local transport plan, Luton Borough Council (LBC) set out the policies, strategies and schemes for Luton, Dunstable and the Houghton Regis area. The current Local Transport Plan (LTP3) for Luton covers the period 2011-2026 and can be accessed through LBC's website.

# Airport planning and development

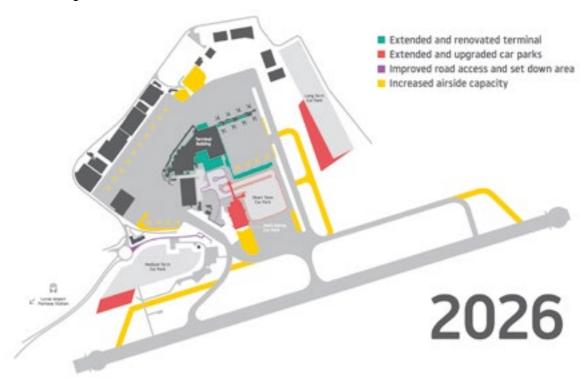
London Luton Airport's planning consent for a £100m development was granted by Luton Borough Council to application 12/01400/FUL in June 2014.

Before the plans were formally submitted, proposals to improve the Airport were subject to two public consultations. 65% of respondents who took part in the consultation on LLA development plans said they supported proposals to develop the Airport. They all stated their support for the economic benefits to Luton and the wider region, and the need to generate 5,100 new jobs, including a contribution to a reduction in youth unemployment.

The proposals involve measures to optimise the capacity of the Airport in four key areas, each of which is linked. For the project to achieve its objectives of improving passenger experience whilst increasing capacity to 18 mppa, all of these measures are required.

- **1. Taxiways.** The current layout of the taxiways leads to aircraft ground congestion during peak periods. The proposals include:
  - a. a parallel taxiway to the east of the Central Terminal Area (CTA) to enhance circulation in and around the aircraft stands, and
  - b. new parallel taxiway extensions for either end of the runway (currently many aircraft have to back track on the runway to maximise the distance available for take-off, which has an impact on the runway's capacity).

Improving the ground movement of aircraft is also likely to result in a reduction in flight delays and the ground running of aircraft engines.



Planning and Development

<sup>\* -</sup> Numbers of spaces given relates to the number approved as part of planning conditions imposed at the time of determination of the application

<sup>\*\* -</sup> Unauthorised sites

- **2. Piers, Stands and Aprons.** An increase in the number of aircraft landing and taking off also requires an increase in the capacity of the infrastructure to handle the aircraft and passengers.
  - a. A number of new stands are proposed, replacing and improving existing stands, with as many as possible as 'contact' stands i.e. where a passenger can access the aircraft directly from the terminal building.
  - b. A new two-storey pier is being provided to service the new contact stands and reduce the need for bussing.
  - c. Additional aircraft parking will also be required and where possible development of the emerging option has focused on making best use of existing areas through their extension and reconfiguration.
- **3. Terminal.** In order for the Airport terminal building to be able to handle the increase in the number of passengers the current building will be reconfigured with a small amount of additional new build between the newer part of the building and the original passenger terminal, incorporating the current bus drop area. At the same time as reconfiguring the terminal to increase its capacity the opportunity will be taken to focus on delivering an improved passenger experience and service at the Airport, this will include:
  - a. Up to 20 security passenger screening lanes;
  - b. 15 immigration passenger screening lanes;
  - c. Up to 8 international and 1 domestic passenger reclaim belts;
  - d. Increased retail, catering, circulation and seating areas.
- **4. Road Access and Car Parking.** The proposals seek to improve the movement of traffic in the Airport, by a. Dualling the road from the Holiday Inn Roundabout to a newly configured road system in front of the Central Terminal Area
  - b. A new multi-storey car park is proposed next to the CTA that will enable easy passenger access to the terminal and at the same time minimise the amount of land required for the car park

Construction will take place over three phases:

	2015	2016	2017	2018	2019	2026
Road works and the exterior of the terminal						
Road improvements, car parks, central transport area and drop-off zone		• July				
Inside the terminal building						
New security area will be relocated downstairs (built in two phases)	-	- March	)			
Expansion of the departure lounge	_	→ Sep	tember			
A new Pier 'B'			→ Februa	ry		
Completion of all terminal building works			• Februa	ry		
Airside works						
Extension of Taxiway 08			Se	ptember		
New Taxiway 'Foxtrot'					- June	
Extension of Taxiway 26						- Marci
Apron expansions (built in three phases)					-	→ Marci