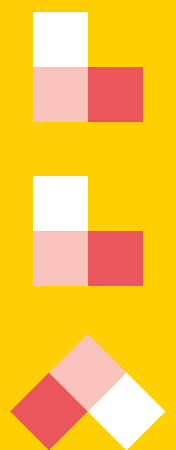


Annual Monitoring Report 2019





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Foreword

Last year was another record-breaking year for London Luton Airport, as we approached 18 million passengers passing through the airport.



With the increasing number of people using the airport, we have really seen the benefit of our £160m transformation for passengers, who have welcomed the greater selection of shops and a more spacious interior, alongside many operational improvements.

It's not just our passengers who have benefitted from the upgraded airport terminal. We are proud of our contribution to the local economy and the thousands of jobs we support in Beds, Herts and Bucks.

I'm also acutely aware that we have a responsibility not only to support the local community, but to also mitigate any impact of our operation on the community and the environment. This is of course continually evolving, but it's why we have the most stringent noise controls of any major UK airport and continue work constructively with our communities and stakeholders.

Throughout 2019, we welcomed more than 150 local residents to our drop-in noise surgeries, as well as attending local community meetings including the Bedfordshire Association of Town and Parish Councils AGM and Hertfordshire Parish Council Conference. We also held separate meetings with individual parish councils, local campaign groups and other local residents to discuss noise. While we saw the total number of complaints increase by more than 50% in 2019, the total number of people who complained fell by 4% and there was a 9% drop in the number of new complainants.

As I write this, coronavirus is taking its toll on the aviation sector globally, and LLA is not immune to this. The impact of the pandemic has been severe, and it will take the airport time to recover and for us and our passengers to adjust to a new way of operating. Despite this, I have no doubt that the airport will not only rise to this challenge, but that we will return stronger than ever.

London Luton Airport is key driver for the economy in Beds, Herts and Bucks and like all airports, it will play a pivotal role in getting the region and the country back up and running once the outbreak is finally contained.

Neil Thompson

*Operations Director
London Luton airport*

A handwritten signature in black ink, appearing to read 'N. Thompson', written in a cursive style.

Key Monitoring Indicators

Parameter		2019	2018
Total Aircraft Movements	↑	141,481	136,270
Day Movements (07:00 - 23:00)	↑	124,306	119,937
Night Movements (23.00 – 07.00)	↑	17,175	16,333
Early Morning Movements (06.00 – 07.00)	↑	5,968	5,794
Total Scheduled Passengers	↑	17,751,946	16,223,039
Total Charter Passengers	↓	248,023	358,811
Total Passengers	↑	17,999,969	16,581,850
Number of Destinations	↓	141	147
Number of New Airlines	↑	1	0
Number of New Routes	↓	19	33
Westerly/Easterly Runway Split (%)	-	70/30	63/37
Night Quota Used (3,500 Limit)	↑	3159.00	3105.75
Average Ratio of Aircraft movements % (day/night)	-	88/12	88/12
Track Violations	↑	53	33
Departure Noise Infringements (Day)	-	0	0
Departure Noise Infringements (Night)	-	0	0
Fines transferred into Community Trust Fund	↑	£58,000	£29,500
24hr Continuous Decent Approach (% achievement)	↓	91%	92%
No. Departures Recorded at ≥ 85 dB(A) during Day (Night)	-	0 (0)	0 (0)
No. Departures Recorded at ≥ 76 dB(A) during Day (Night)	↑	7,749 (1,056)	6,604 (1,025)
No. Departures Recorded at ≥ 70 dB(A) during Day (Night)	↑	48,567 (6,333)	46,344 (5,663)
Night Noise Contour Area (48 dB L _{Aeq, 8h})	↑	44.2km ²	40.2km ²
Population within Night Noise Contour (48 dB L _{Aeq, 8h})	↑	21,250	18,450
Dwellings within Night Noise Contour (48 dB L _{Aeq, 8h})	↑	8,950	7,800
Noise Complaints	↑	12,735	8,275
Complainants	↓	664	691
Number of New Complainants	↓	357	394
Largest Source of Complaints	-	Deps. West	Deps. West
Number of PM ₁₀ exceedances	-	0	0

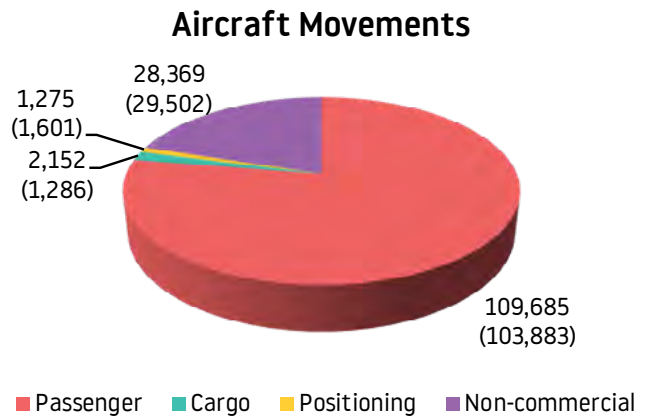
Air Traffic Data

Aircraft movements

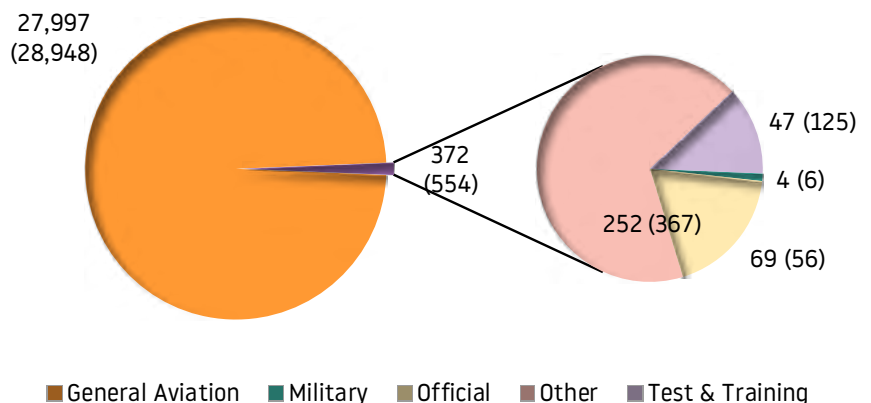
LLA handled a total of 141,481 aircraft movements during 2019, an increase of 3.8% compared to 2018. An aircraft movement is the take-off or landing of any aircraft from the airport.

The majority of aircraft movements were passenger flights at 109,685 movements. This includes commercial flights by executive aircraft (compared with 103,883 in 2018). Other movements included cargo, positioning flights and non-commercial flights.

For comparison purposes 2018 data is shown in 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

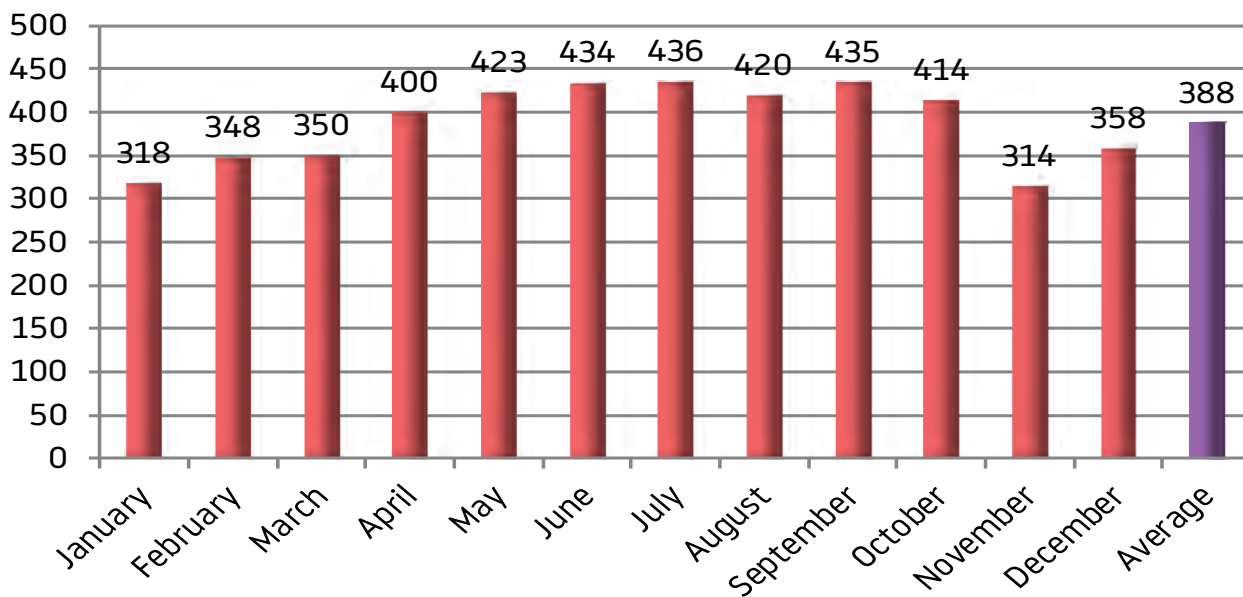
Official – flights solely for official purposes by British or foreign civil government departments

Other – flights coming for maintenance and or departing aircraft that have made an unscheduled return to base

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

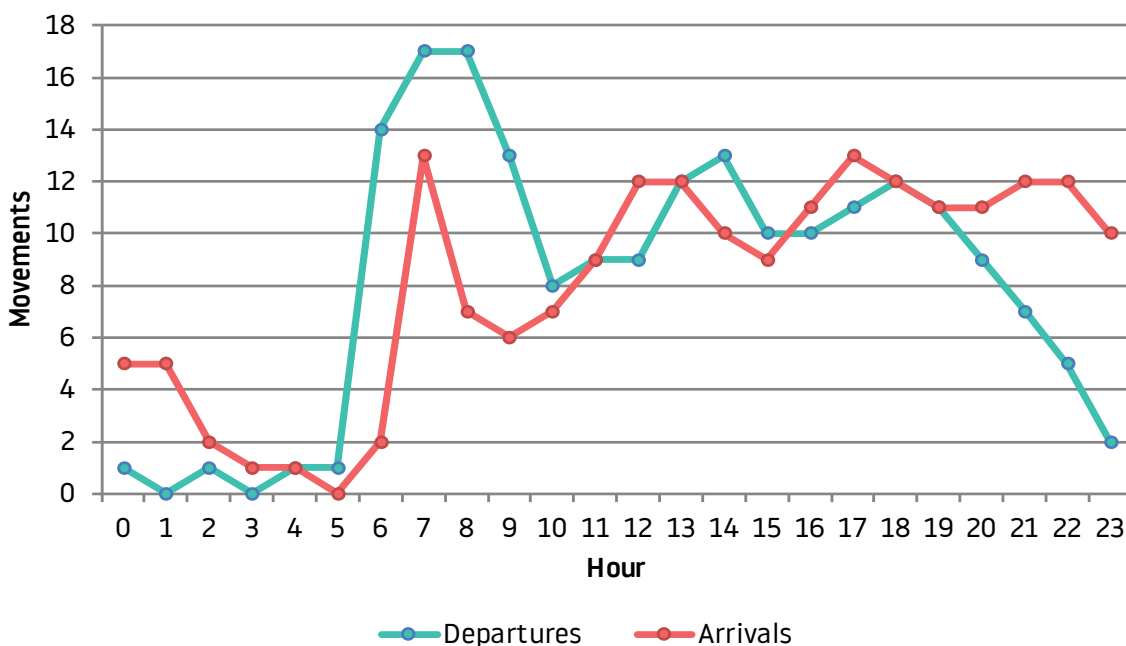
The graph below illustrates that the busiest time of year is May - October. **Our busiest day of the year was 24th May with 487 aircraft movements.** In comparison, winter months are the quietest. On average there were 388 movements per 24 hours (compared to 373 in 2018).

Annual Average Daily Movements

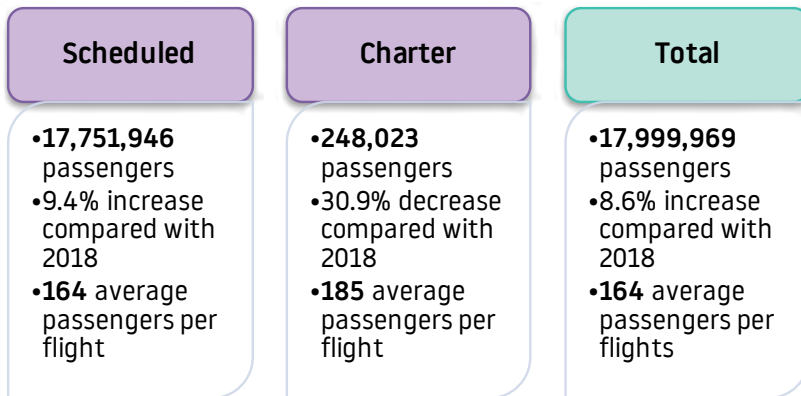


The busiest time on average during 2019 for departing aircraft was 07:00-08:00 hrs, with another peak between 13:00-14:00. The average busiest time for arrivals was 07:00-08:00 hrs and 17:00-18:00 hrs. The graph also highlights a low level of average movements during the hours of 00:00-06:00 hrs.

Annual Average Hourly Movements

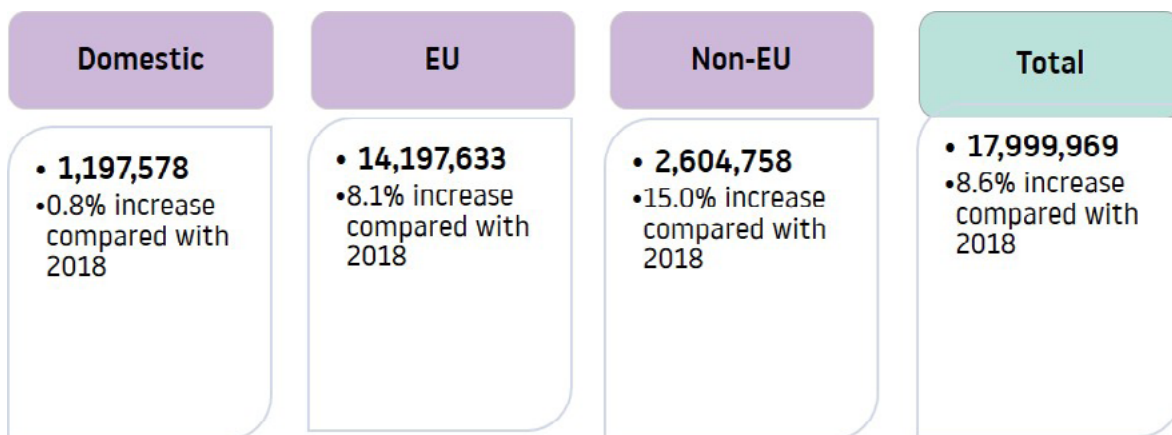


Passenger data



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 17,999,969 passengers used LLA during 2019; 17,751,946 on scheduled flights (98.6%) and 248,023 on charter flights (1.4%). This represents an increase in passengers of 8.6% compared with 2018.



Cargo

Cargo operations represented just under 2% of all air transport movements at London Luton Airport in 2019. Night movements accounted for 57% of total cargo movements, which is a reduction compared to 2018. These were primarily 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

Operator	Movements			Tonnes
	Day Movements	Night Movements	Total	Total
2019	1,210	1,618	2,828	36,906
2018	706	1,582	2,288	27,096
2019/2018 comparison	+70%	+2%	+24%	+36%

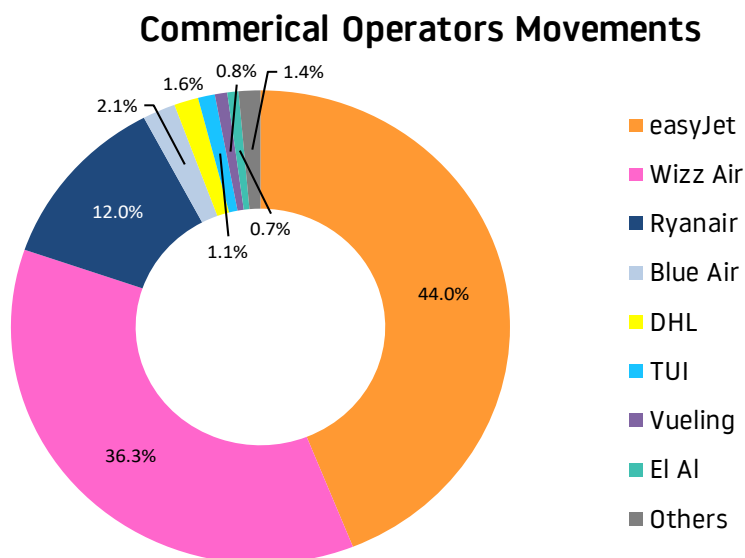
N.B. The cargo movement count is the total number of movements that carried cargo as opposed to flights that are primarily operated for the carriage of cargo. This is because 1% of total cargo tonnage was carried on passenger aircraft. Consequently the movement figures in this section will differ from 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 commercial operators.

Operator	Movements
easyJet	49,160
Wizz	40,636
Ryanair	13,393
Blue Air	2,384
DHL	1,761
TUI	1,224
Vueling	898
El Al	813
Others	1,568
TOTAL	111,837



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



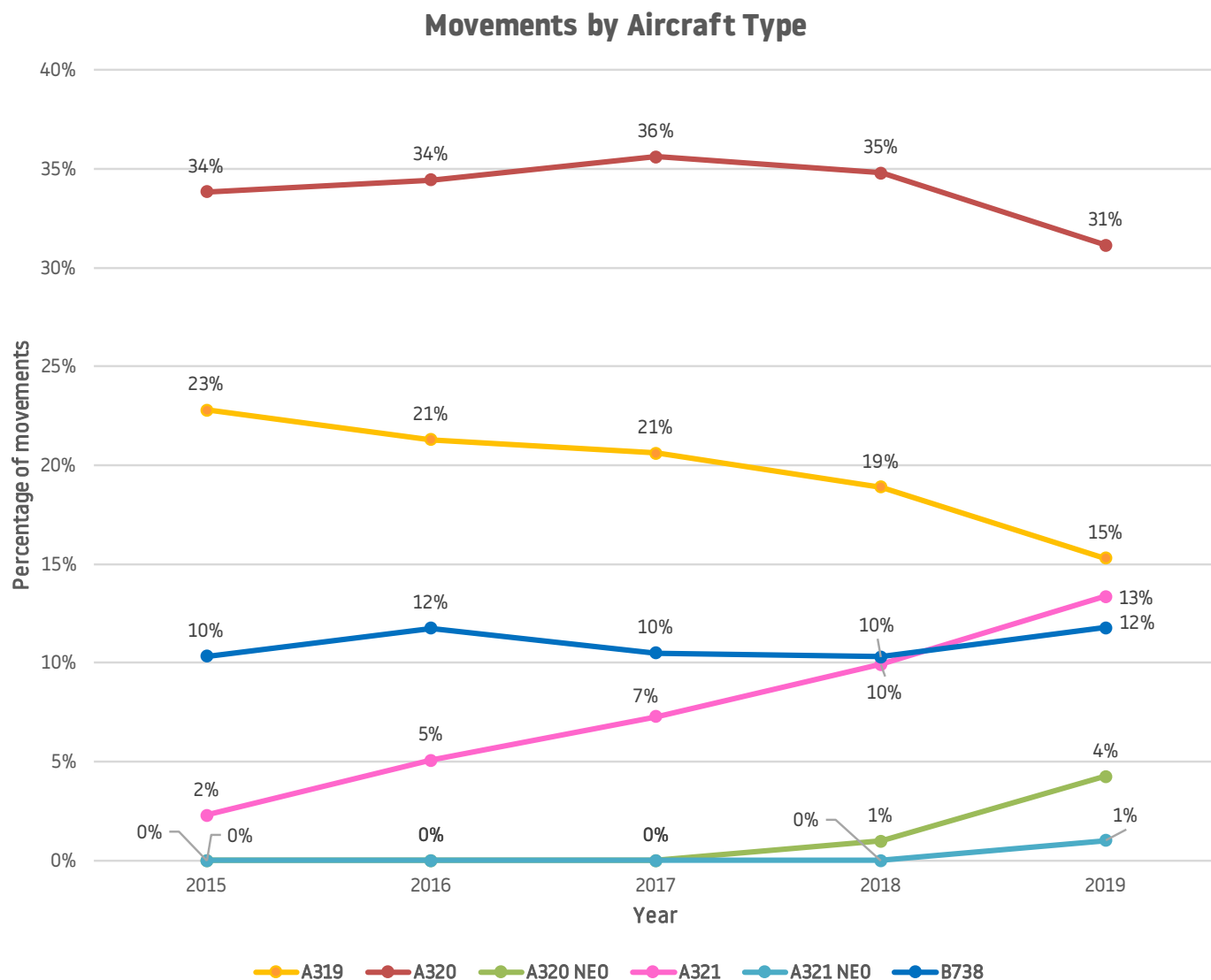
Movements by aircraft type

Aircraft Type	Movements	% of Total movements
A306	1,758	1.2%
Airbus A319	21,642	15.3%
Airbus A320	44,074	31.2%
Airbus A320 NEO	6,013	4.3%
Airbus A321	18,922	13.4%
Airbus A321 NEO	1,434	1.0%
Airbus A330	66	-
Boeing B737-300	152	0.1%
Boeing B737-400	598	0.4%
Boeing B737-500	182	0.1%
Boeing B737-700	227	0.2%
Boeing B737-800	16,683	11.8%
Boeing B737-900	550	0.4%
Boeing B757	1,414	1.0%
Boeing B767	26	-
Boeing B777	64	-
Boeing B787	40	-
Canadair Global Express GLEX	3,562	2.5%
Cessna Citation Excel C56X	2,435	1.7%
Canadair Challenger CL30	291	0.2%
Canadair Challenger CL60	1,622	1.1%
Gulfstream 3,4 & 400 series GLF3/GLF4	1,122	0.8%
Gulfstream 5 and 500 series GLF5	1,668	1.2%
Gulfstream 650 GLF6	1,590	1.1%
Embraer Legacy 600	459	0.3%
Cessna Citation Jet C525	76	-
Dassault Falcon FA7X	1,067	0.8%
Helicopter	578	0.4%
Other aircraft	13,160	9.3%
TOTAL	141.475	100%

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.

¹ - Winglets and sharklets are small aerodynamic surfaces mounted almost vertically at the wingtips. There is no difference between winglets and sharklets; the term sharklet is just the name used by Airbus for the winglets fitted to their aircraft.

The graph below shows the percentage of the most popular type of movements by aircraft type at LLA. The data goes back five years for data comparison purposes.



Destinations

London Luton Airport has seen continuous passenger growth during 2019, making 2019 the busiest year ever in the airport's history.

Our airlines fly to 141 destinations across 41 different countries.

The table below shows the number of movements on our busiest routes in 2019.

Destination	Number of Movements
Amsterdam	6,145
Bucharest-Otopeni	3,473
Geneva	3,236
Barcelona	3,117
Tel Aviv	3,075
Budapest	2,994
Dublin	2,657
Nice	2,627
Belfast	2,580
Malaga	2,568

New Routes 2019

Destination	Launch	Airline	Destination	Launch	Airline
Krakow	04-Apr-2019	Wizz Air	Oslo	16-Sept-2019	Wizz Air
Thessakiniki	02-May-2019	TUI	Catania	17-Sept-2019	Wizz Air
Heraklion	02-May-2019	TUI	Sarajevo	24-Sept-2019	Fly Bosnia
Enfidha	03-May-2019	TUI	Moscow	01-Oct-2019	Wizz Air
Thessaloniki	01-Jul-2019	Wizz Air	St Petersburg	01-Oct-2019	Wizz Air
Bergen	01-Jul-2019	Wizz Air	Krakow	27-Oct-2019	Ryanair
Porto	02-Jul-2019	Wizz Air	Prague	28-Oct-2019	EasyJet
Turku	02-Jul-2019	Wizz Air	Seville	09-Nov-2019	Ryanair
Kiev	01-Sept-2019	Wizz Air	Castellon	09-Dec-2019	Wizz Air
Stavanger	16-Sept-2019	Wizz Air			

Routes Ending 2019

Whilst there were 19 new routes launched from LLA in 2019, 21 routes ended.

More information about our destinations can be found on the airport's website: <http://www.london-luton.co.uk/inside-lla/destination-map>

Runway usage

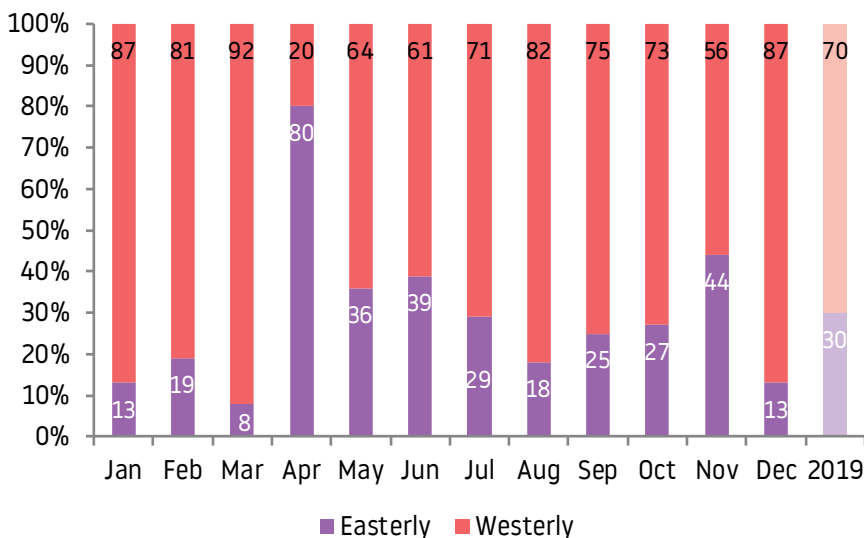
Aircraft need to land and take off into the wind and therefore the prevailing wind direction determines the direction of airfield operation. South westerly and westerly winds prevail for much of the year, typically around 70 per cent of the time.

Wind speeds and directions recorded at higher altitudes can vary considerably from those recorded at ground level. The position of the wind is under constant review by NATS which is why the operation can change direction more than once in a day. However it is also not unusual for the runway to operate in the same direction for several weeks.

A monthly breakdown is shown, highlighting unusually prolonged spells of westerly operations over the summer and increased levels of easterly operations over Q2 of 2019.



Runway Usage



Year	Easterly	Westerly
2019	30%	70%
2018	37%	63%
2017	21%	79%
2016	30%	70%
2015	28%	72%
Average	29%	71%

The runway split during 2019 was 30% easterly and 70% westerly (compared to 37% / 63% in 2018). A breakdown of runway usage over the last five years is also shown in the table, giving a historical split of 29% easterly and 71% westerly.

Night Flights

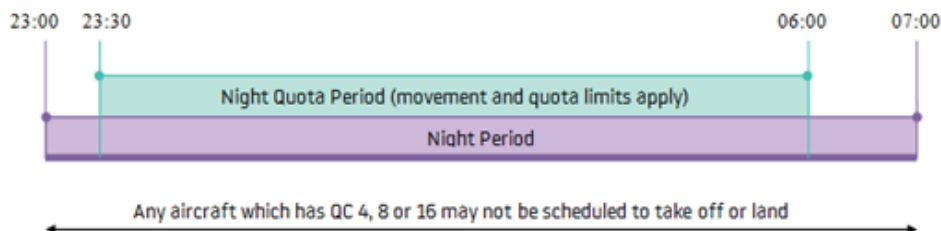


Night Flying Restrictions

As from 1st April 2015 London Luton Airport introduced new night restrictions as part of the planning conditions imposed by Luton Borough Council.

These restrictions have been put in place to limit and mitigate noise disturbance from aircraft operating at night, to prohibit aircraft of certain types from operating, as well as limiting the number of occasions on which aircraft may take off or land.

The night flying restrictions contain a 12 month period aircraft movement limit and a 12 month period quota count limit. The quota count (QC) means that points are allocated to different aircraft types according to how noisy they are. The noisier the aircraft type, the higher the points allocated. This provides an incentive for airlines to use quieter aircraft



The table overleaf records the QC bands identified by the certified noise levels, and gives some typical example aircraft, some of which operate from LLA.

The 'Night Quota Period'

The 'Night Quota Period' is from 23:30 to 06:00 hours local, during which period aircraft movements (take-off or landing) are restricted by a limit on the number of movements with noise quotas as an additional measure.

Aircraft are certificated by the International Civil Aviation Organisation (ICAO) according to the noise they produce during specific certification tests conducted by the manufacturer. They are classified separately for both take off and landing. The points are then allocated to different aircraft types according to how noisy they are.

The 'Early Morning Shoulder Period'

The 'Early Morning Shoulder Period' is 06:00 to 07:00 hours local. During this period aircraft movements (take-off or landing) are restricted by a limit on the number of movements (the same as the Night Quota Period).

Aircraft movement and quota count limits (per 12 month period)

Condition 9(iii) requires that for the Night Quota Period (2330 - 0600) the following limits shall not be exceeded:

- Total annual movements by aircraft per 12 month period shall be limited to 9,650;
- The total annual noise quota in any 12 month period shall be limited to 3,500.

Certificated noise level (EPNdB)	Typical aircraft	Quota Count
96 to 98.9	B732, MD10	QC 4
93 to 95.9	B772, A306, A332	QC 2
90 to 92.9	A320/A321, some B738, B752, B788	QC 1
87 to 89.9	A319/A320, some B734, B738, B788	QC 0.5
84 to 86.9	A319/A320, GLEX, FA7X/F900/F2TH	QC 0.25
Less than 84	Challenger series (eg CL60), ATP, C525/C550 & A320 NEO	QC 0

Condition 9(iv) requires that for the Early Morning Shoulder Period (0600 - 0700) the total annual movements by aircraft in any 12 month period shall be limited to 7,000.

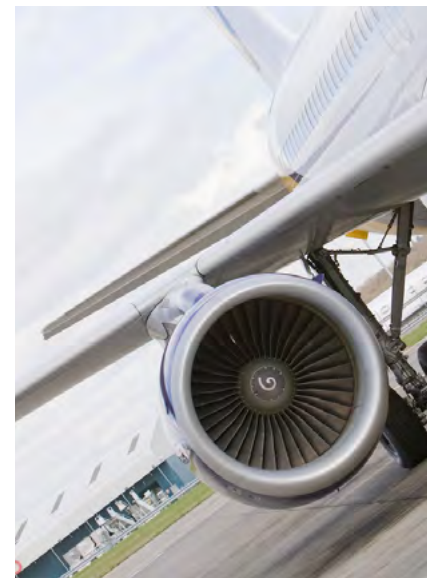
The table below provides total aircraft annual movements and noise quota per 12 month period and compares those against the limits set by planning conditions.

	Night Quota Period (2330 - 0600)		Early Morning Shoulder (0600 - 0700)
	Movements Limited to 9,650	Quota Count Limited to 3,500	Movements Limited to 7,000
Jan 2019	480	194.25	402
Feb 2019	447	180.25	358
Mar 2019	508	183.25	418
Apr 2019	816	266.25	606
May 2019	937	301.25	671
Jun 2019	873	320.75	585
Jul 2019	1,033	398.75	629
Aug 2019	1,003	361.75	575
Sep 2019	834	301.50	516
Oct 2019	896	292.25	516
Nov 2019	449	167.25	335
Dec 2019	568	191.50	357
Total for preceding 12 months	8,844	3,159.00	5,968

There were 53 QC 2 aircraft movements in 2019 during the night time period; 35 were departures by Airbus A300-600 aircraft, 15 were departures by Airbus A330-200 aircraft, 1 was an arrival by an AgustaWestland AW189 helicopter and 2 were departures by Boeing 777-200 aircraft. The two movements by a Boeing 777-200 aircraft were operated by El Al as part of a childrens charity flight. There were no night time aircraft movements with a QC value greater than 2 in 2019.

Marginally Compliant Chapter 3 aircraft

Taking the year as a whole, of the 140,028 movements where Chapter 3 categorisation is applicable, 4 are known to be marginally compliant. These movements were by a Gulfstream IIB and a Gulfstream 3. 2 aircraft movements were by aircraft with unknown classification. These movements were by an Antonov AN-124.



Day/Night ratio of movements

There were 17,175 night movements during 2019 (compared to 16,333 in 2018, a increase of 5%), an average of 47 movements per night (compared to 45 last year). Arriving aircraft accounted for 56%

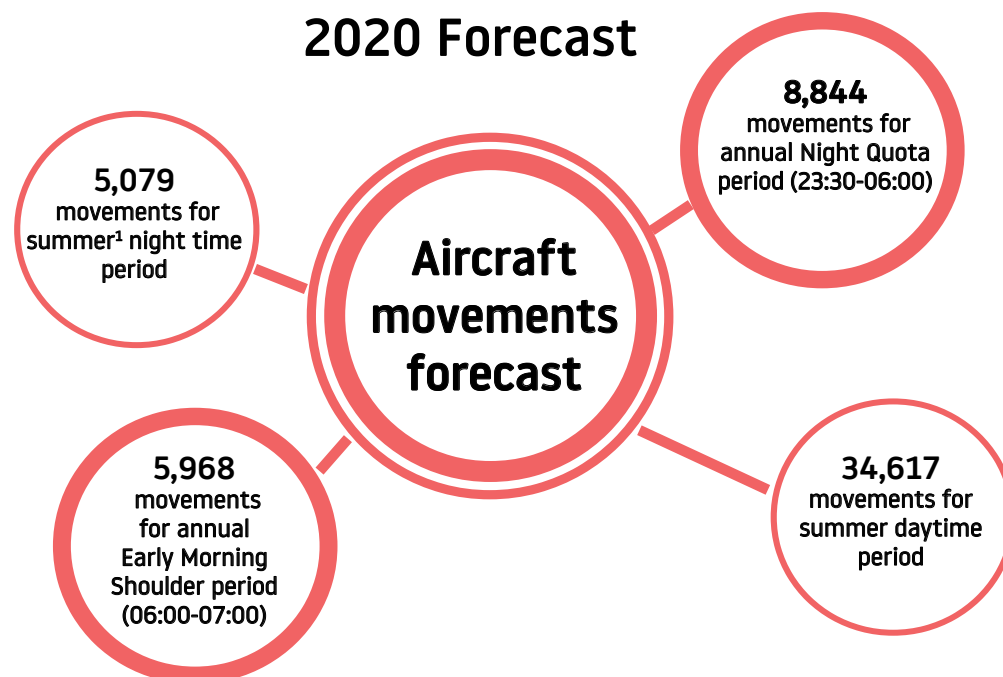
of total night movements, relating primarily to the last rotation of Luton based passenger aircraft scheduled to land back at the airport at night, between 23:00 hrs and midnight. 68% of total night

departures took off between 0600 - 0700 in the morning.

The average ratio of total aircraft movements during 2019 was 88% day / 12% night (same as 2018).

2019	Day Movements (0700 - 2259)	Night Movements (2300 - 0659)		
	Day Movements	Night Quota Period (2330 - 0559)	Early Morning Shoulder (0600 - 0659)	Total Night Movements (2300 - 0659)
Departures	63,183	1,996	5,125	7,562
Arrivals	61,123	6,848	843	9,613
TOTAL	124,306	8,844	5,968	17,175

The figure below shows forecast aircraft movements for 2020, separated into daytime and night time periods. Please note, this forecast was created before COVID-19 in the UK.



¹ - Summer time covers period from 16th June until 15th September

Departing Aircraft

All propeller-driven aircraft with Maximum Take Off Mass (MTOM) over 5,700kg and all jet aircraft leaving London Luton Airport are required to follow specific departure routes known as Noise Preferential Routes (NPRs). These are established by consultation with the Safety and Airspace Regulatory Group (SARG) at the CAA and the London Luton Airport Consultative Committee, and they are designed to avoid flying over built-up areas wherever possible.

There are four Standard Instrument Departure (SID) routes for each runway – OLNEY, COMPTON, MATCH and DETLING.

Associated with each NPR is a swathe of airspace extending 1.5km (1km for RNAV) 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.

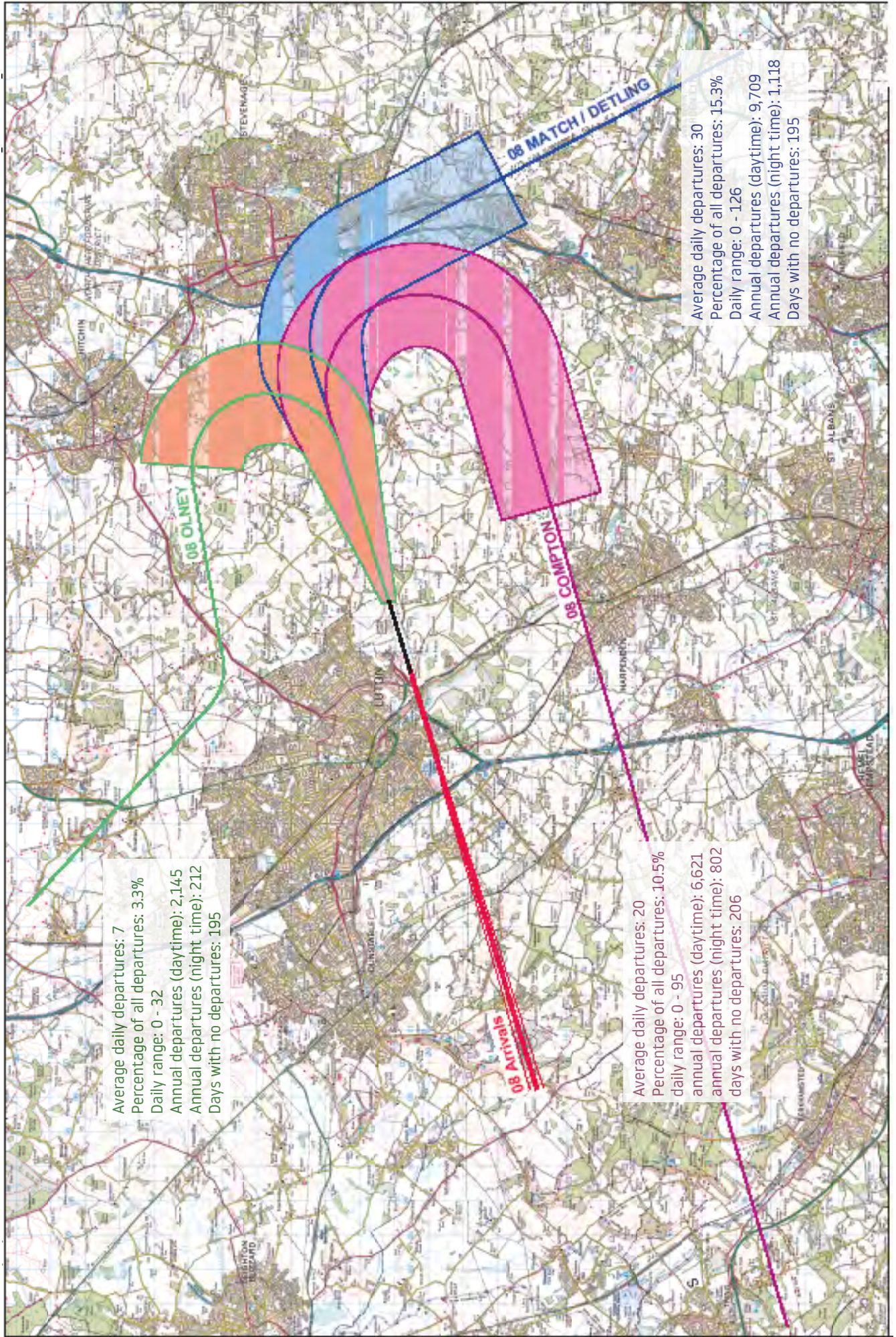
In the UK, the obligations of Noise Preferential Routings for aircraft following conventional SIDs cease when a height of 3,000ft (between 07:00hrs to 22:59hrs local time) and 4,000ft (during night time, 23:00hrs to 06:59hrs local time) has been reached. The obligations of the RNAV NPR ceases when a height of 4,000ft has been reached at all times.

Once aircraft have reached the NPR restricted altitude they will be considered no longer on the Noise Preferential Route. At that stage the aircraft may be directed by Air Traffic Controllers onto a different heading in order to integrate with the overall flow of traffic, this is known as vectoring. However on RNAV Match/Detling SID aircraft should not be vectored before the railway line between St Albans and Harpenden, unless this is required for safe separation from other aircraft or for other safety issues such as avoiding adverse weather.

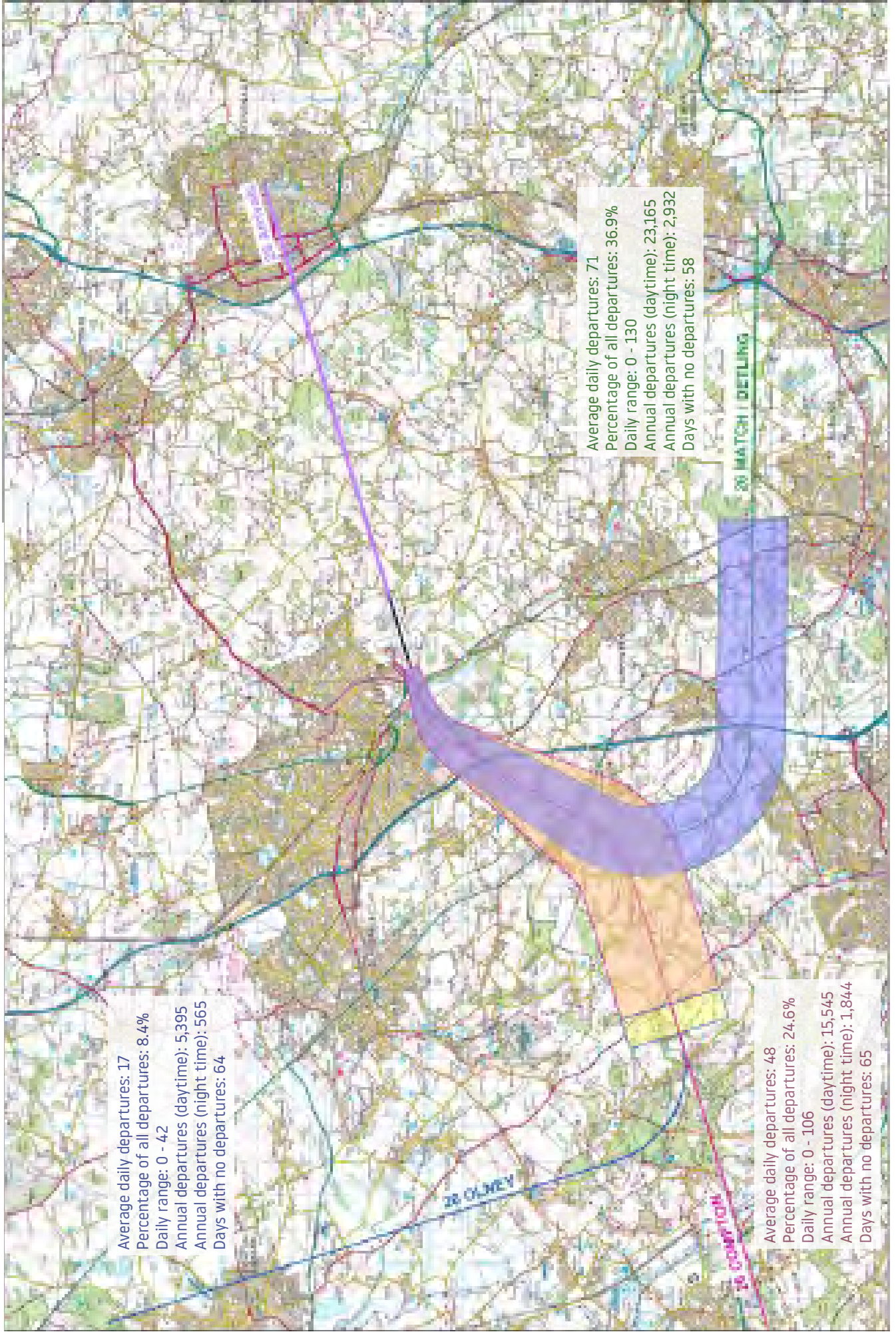
Two maps overleaf show indicative flight routes for westerly and easterly operations at London Luton Airport with detailed information about each departure route.



Plan showing Easterly (08) flight routes



Plan showing Westerly (26) flight routes



On Track performance

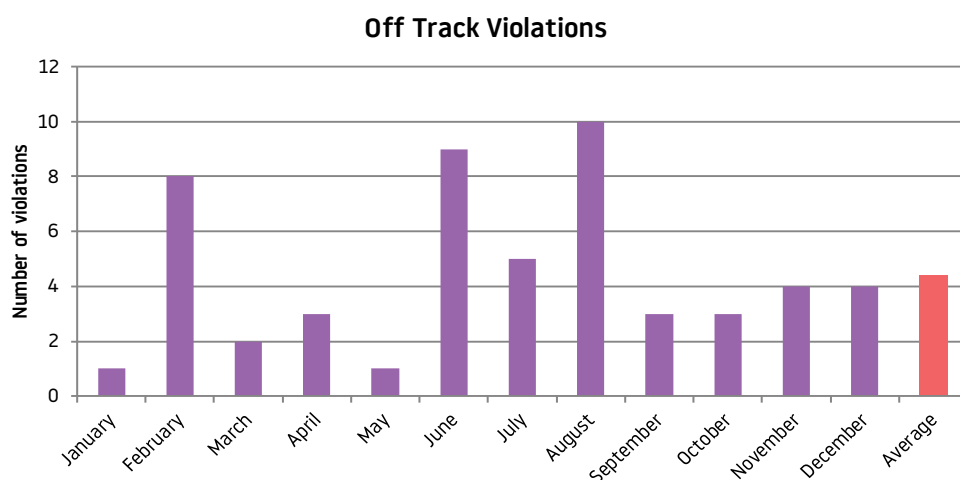
On the 1st April 2015 London Luton Airport implemented a Track Violation Penalty System as part of the noise related planning conditions. Using the airport's Aircraft Noise and Track Monitoring System, the Flight Operations Team evaluates the radar tracks and investigates them with required input from Air Traffic Control (ATC) and airlines. A departure is deemed to have complied with the Noise Preferential Routing if the portion of flight below the appropriate vectoring altitude is flown wholly within the Lateral Swathe (LS). Where the aircraft is clearly flying outside the LS, the aircraft is identified as causing a "possible" track violation and is subject to a nominal fine. This money is transferred to our Community Trust Fund which awards grants to community projects.

From 1st April 2018, the penalty was increased to £1,000 for a daytime violation (07:00-22:59hrs) and £2,000 for a night time violation (23:00-06:59hrs).

As always, safety is paramount and there may be cases which involve vectoring an aircraft sooner than at the NPR height restriction. If ATC identifies any valid justification that could explain the deviation from the track, then the operator causing it will be exempt from the fine. Valid justifications include:

- Safety or operational reasons, i.e ATC vectoring
- Weather avoidance due to thunderstorm activity (as instructed by ATC)
- Emergencies

The diagram below shows off-track violations by month in 2019. The track keeping performance was 99.6%. This calculation excludes deviations for weather, traffic avoidance and those identified as violations.



£58,000 the total of all collected fines transferred to Community Trust Fund

The breakdown of the violations by aircraft type is shown in the tables below.

A/C Type	Total № Violations
GLEX	12
GLF6	6
BE40, C550, C560, C56X, C680, C68A, CL60, CN35, F2TH, FA10, FA7X, GLF4, GLF5, H25B, LJ45, RJ1H, ZLJ4, ZLJ6	25
A319, A320, B734, B737, B738	9
A306	1
TOTAL	53

Airspace Change Proposal's

At LLA we are currently working on our next phase of airspace change which involves Performance Based Navigational procedures. In order to change any piece of airspace, the Civil Aviation Authority (CAA) require all airports to follow a regulatory process which is detailed in the CAA's publication CAP 1616. This document can be downloaded from [here](#).

Furthermore, in line with the CAP 1616 process all documentation surrounding an Airspace Change Proposal will be uploaded to the CAA's dedicated portal which can be accessed at <https://airspacechange.caa.co.uk/>

Swanwick Airspace Improvement Project - Airspace Development 6 (SAIP AD6)

In 2019, LLA started an airspace change proposal with joint sponsors, NATS. The purpose of the airspace change is to reduce the complexity of LLA arrivals (and their interacting relationship with London Stansted Airport arrivals), in turn assuring a safe operation for the future. This involves a new holding stack for Luton arrivals.

In April 2019, LLA and NATS submitted the Stage 1 documentation to the CAA, this included design principles and the purpose of the change. This was after engagement with stakeholders (including community, airlines and general aviation). The CAA approved the work and allowed the airspace change to proceed.

Throughout the summer of 2019, work continued on the airspace design; NATS predominantly investigated the upper airspace (above 7,000ft) and LLA worked on the lower designs (below 7,000ft). These designs were then analysed through an initial options appraisal and design principle evaluation. This documentation was submitted to the CAA in November 2019, whereby the CAA approved LLA/NATS to continue.

This airspace change will continue throughout 2020 with a targeted implementation of May 2021. All updated documentation submitted to the CAA for this airspace change is available on the CAA's airspace change portal [here](#).

Future Airspace Strategy Implementation - South (FASI-S)

As part of a National airspace change programme, as detailed in the Civil Aviation Authority's (CAA) Airspace Modernisation Strategy, London Luton Airport is required to update all of its arrival and departure procedures in a move towards satellite based technology. The programme is known as FASI-S and involves many airports and NATS.

The Future Airspace Strategy Implementation South (FASI South) programme in 2019 was co-ordinated by a new group known as ACOG (Airspace Change Organisation Group). However, each airport is an airspace change sponsor and responsible for their own designs and integrating these routes with other airports and upper airspace.

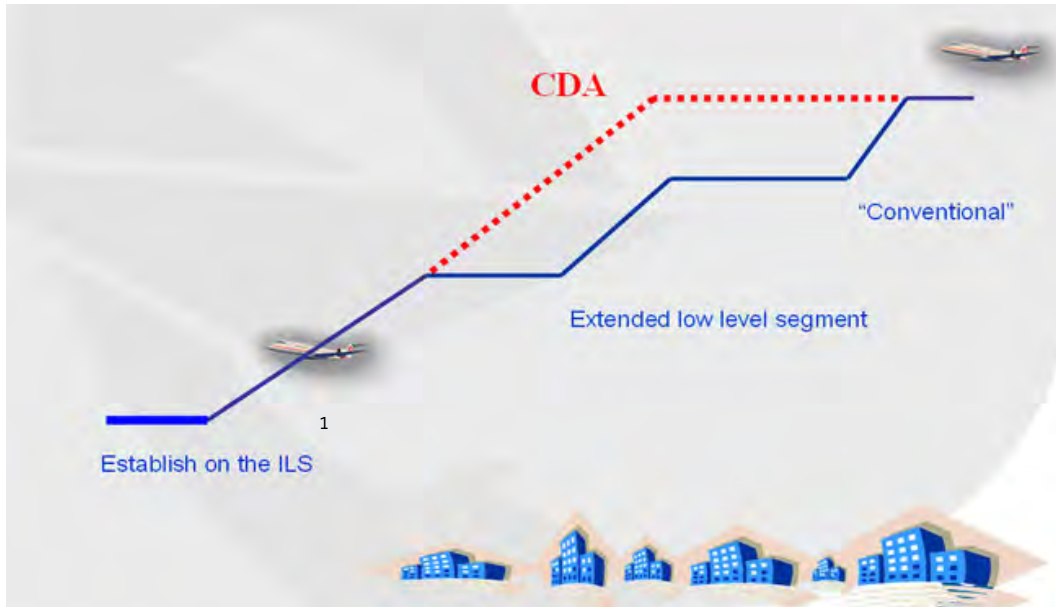
LLA started the FASI-S airspace change in November 2018 and submitted a Statement of Need to the CAA. In the Statement of Need LLA stated that we are using this opportunity to look at options of aircraft reaching higher altitudes sooner on departure and remaining higher for longer on arrival enabling significant environmental benefits.

In the first half of 2019, LLA conducted engagement with stakeholders (this included community, airline and general aviation stakeholders) regarding design principles and the purpose of the airspace change. This documentation was submitted to the CAA in May 2019 as part of the Stage 1 Gateway; this work was subsequently approved by the CAA. During the second half of 2019, work continued on designs based on the design principles submitted in the CAA gateway, this is Stage 2A of the CAP 1616 process working towards a Stage 2 gateway in July 2020.

All updated documentation submitted to the CAA for this airspace change is available on the CAA's airspace change portal [here](#).

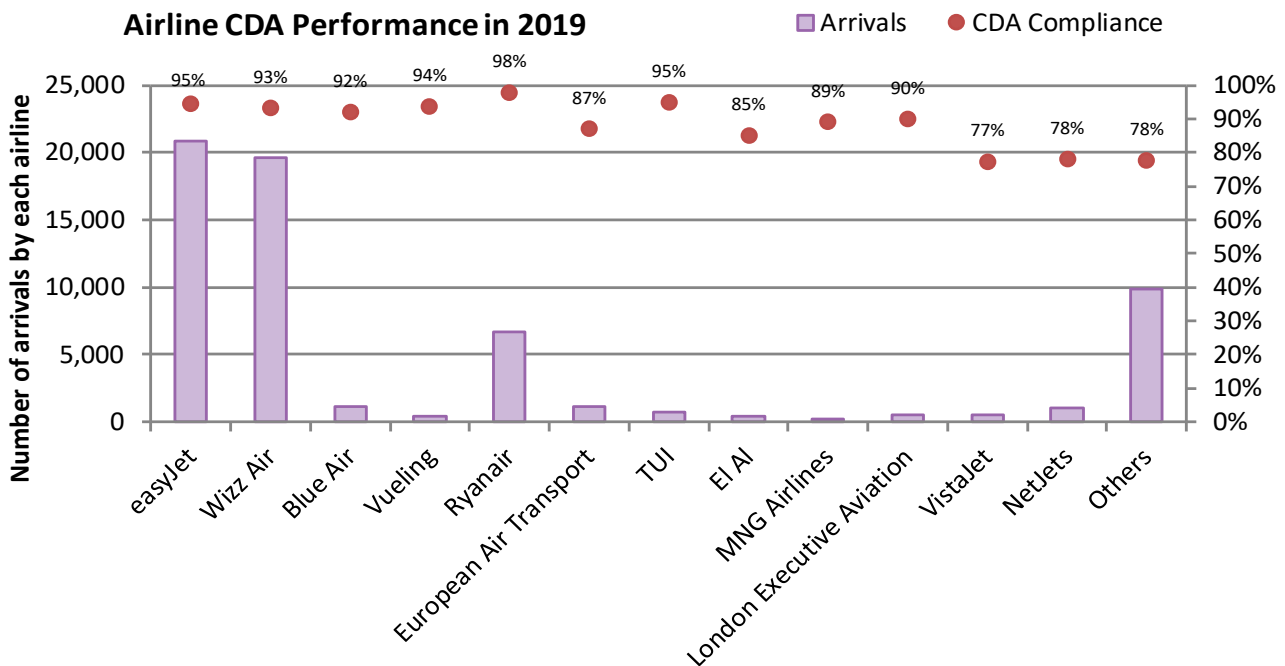
Arriving Aircraft

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 (CDA).



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 descends at a continuous rate to the runway threshold therefore reducing periods of prolonged level flight at lower altitudes. With CDA less fuel is burnt, less emissions are produced but most importantly it reduces the noise by avoiding the use of engine thrust required for level flight.

The overall CDA achievement was 91% with several major LLA operators achieving higher performance; Ryanair, easyJet and TUI. The chart compares the level of CDA performance by our main airline operators.



¹ - An Instrument Landing System (ILS) is a ground-based instrument approach aid based on two radio beams which together provide lateral and vertical guidance to an aircraft approaching and landing on a runway.

Delayed Landing Gear Deployment

At LLA we always aim to work constructively with our local community in order to reduce the impacts of noise. In 2017, LLA conducted an aviation leading trial to reduce noise by from arriving aircraft. The trial, conducted during the summer, consisted of aircraft delaying the deployment of landing gear.

As an aircraft makes its final approach most noise is caused by the flow of air over the fuselage as drag is created to slow the aircraft down. Noise was measured along the arrivals flightpath to understand what, if any, reduction which could be achieved. Stevenage, Dagnall and Whipnade were among those communities who saw the greatest benefit of between 2.7db and 3.4db

Following the successful trial, some operators have already changed their operating procedures to make this standard practice. During 2019, LLA continued to work with operators to encourage delayed landing gear deployment.

Departure and arrival flight tracks

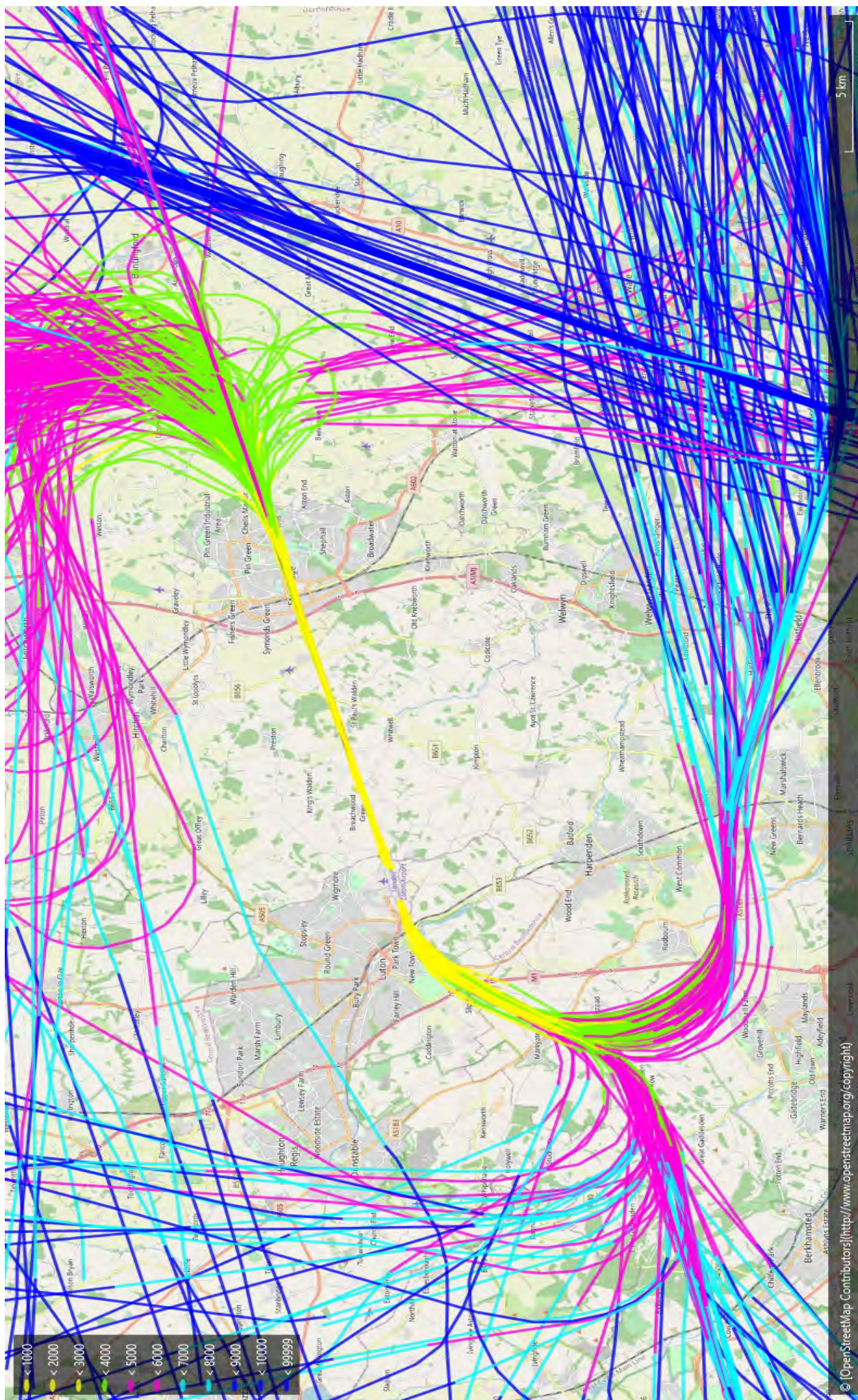
Maps overleaf display typical 24 hour periods of both westerly and easterly operations. The colour coding from yellow to blue represents different altitude bands up to 10,000ft above mean sea level.

The last two maps display aircraft track density plots for the summer period 16th June - 15th September 2019. 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.

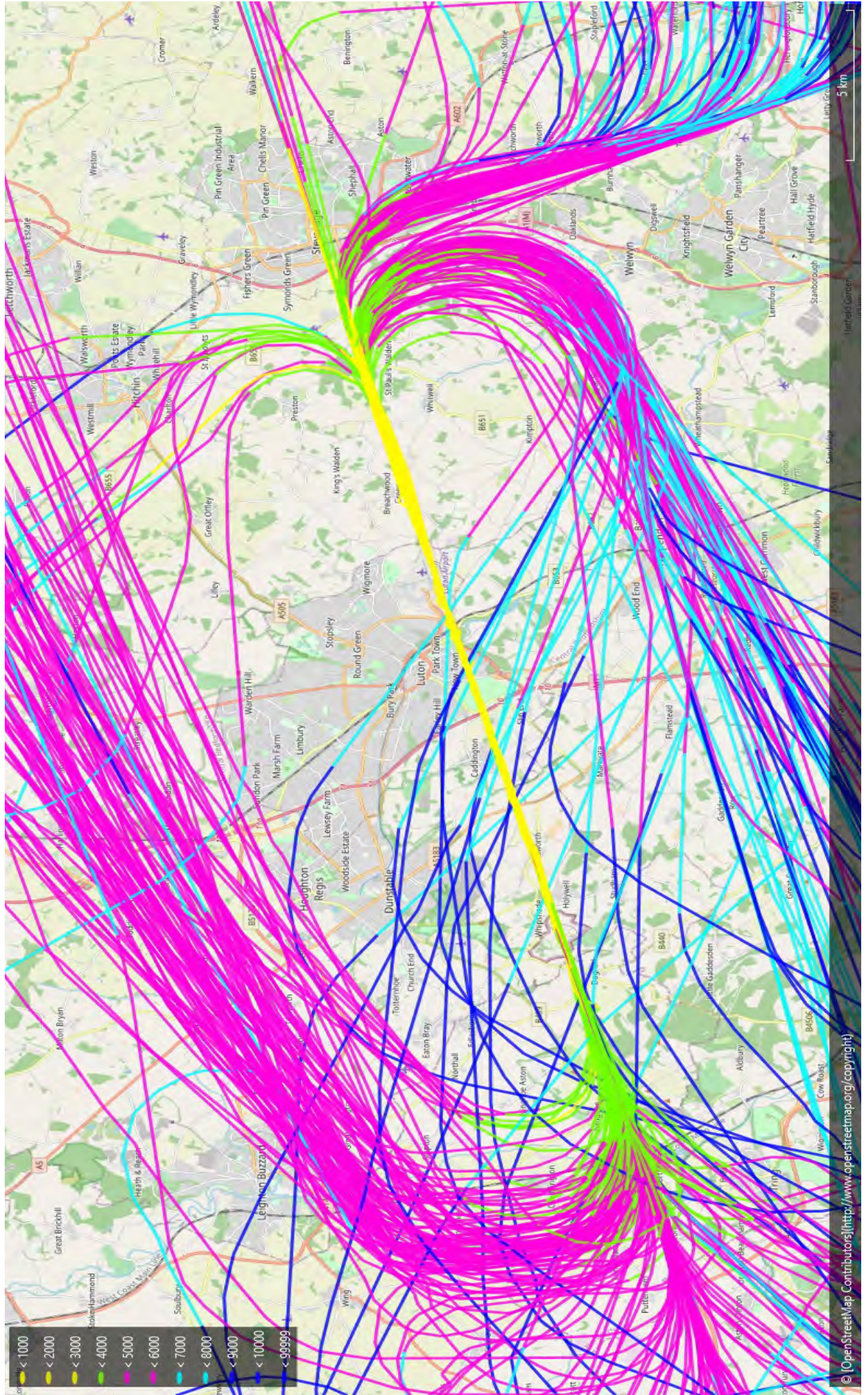
It should be noted that London Luton Airport's aircraft movements integrate with a traffic network travelling to and from other airports in the region, and the South East is one of the world's busiest sectors of airspace. However the following sample flight tracks only include operations for London Luton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



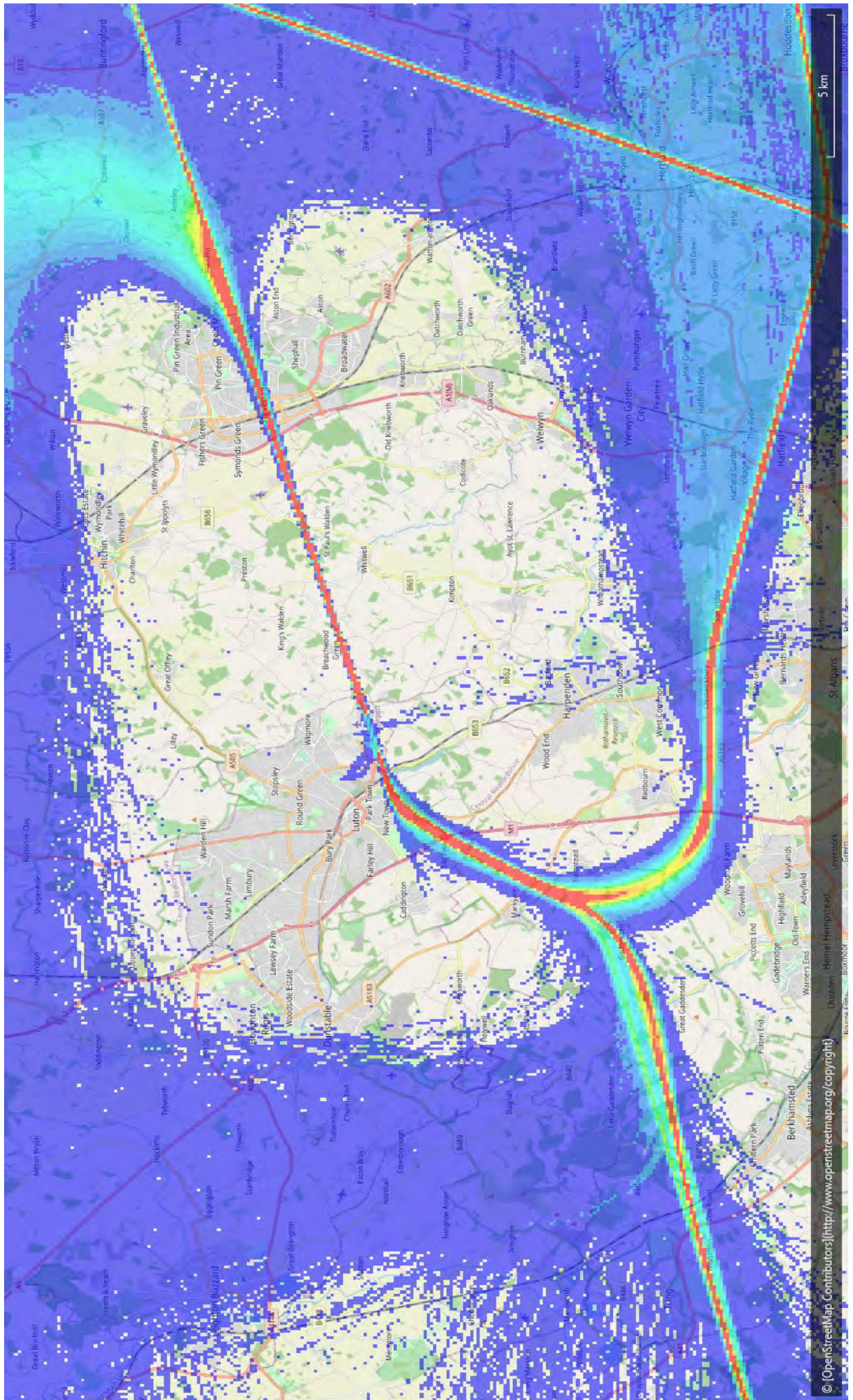
Westerly (26) Flight Routes (24 hour period)



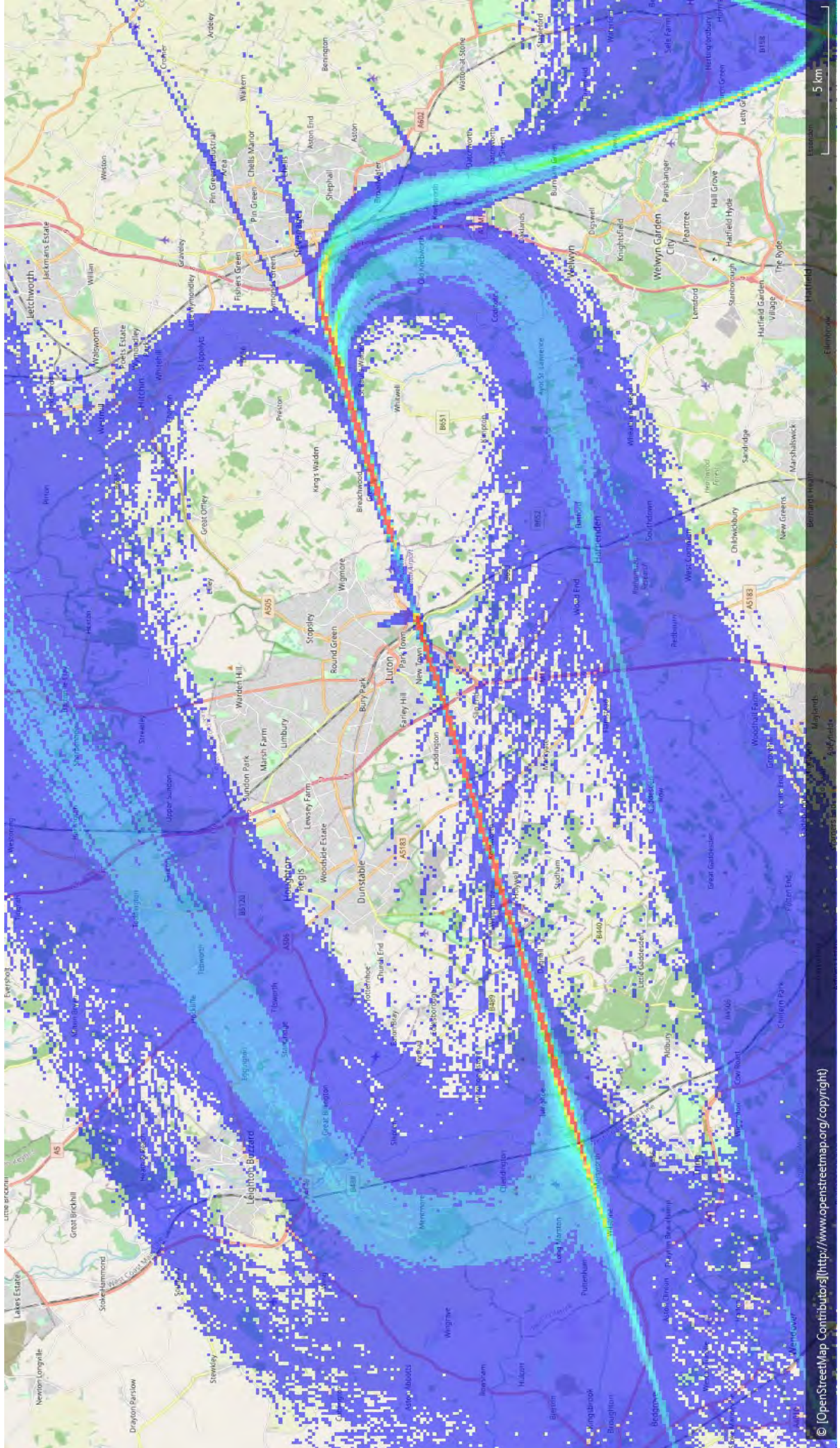
Easterly (08) Flight Routes (24 hour period)



Plot Density - 16th June - 15th September 2018 - Westerly (26)



Plot Density - 16th June - 15th September 2018 - Easterly (08)



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 we monitor noise and track keeping with a specialised system that 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. New features and system enhancements continue to improve the functionality and capabilities available to the Flight Operations Department.



LLA has 7 portable noise monitors and 3 fixed noise monitors. During 2019, noise was monitored in 12 locations: Breachwood Green, Caddington, Dagnall, Flamstead, South Harpenden, Kensworth, Leighton Buzzard, Letchworth, South Luton, Markyate, St Alban, Stevenage and Wheathampstead. The Community Noise Report for each location can be found on <https://www.london-luton.co.uk/corporate/community/noise/community-noise-reports>.

Noise violation levels



The following table identifies daytime and night-time noise levels correlated to departing aircraft at the fixed noise monitoring terminals.

In order for a noise event to be correlated to an aircraft it should reach a detection threshold. The noise monitoring terminals are set at the lowest level to record the maximum number of aircraft noise events. However, a number of smaller aircraft types, such as business jets and propeller aircraft, get very close to but do not reach the detection threshold. Ambient background noise is also an important factor as specific incidents such as loud road traffic, emergency vehicle sirens, lawn mowers, drills etc. can register noise levels louder than an aircraft overhead, which results in not all aircraft movements being correlated to noise events. Generally, the louder noise events have more certainty of being correlated with aircraft movements.

Weather conditions can also effect the number of noise monitoring events recorded in the table; for example, if winds are greater than 10m/s and temperature is either higher than 25°C or below -10°C, results from noise monitors will be invalid and therefore will not be correlated.

	dB (A)	Daytime	NightTime	Total
Number of Correlated Events	<70	6,064	579	6,643
	70	2,007	238	2,245
	71	3,030	353	3,383
	72	5,764	726	6,490
	73	9,964	1,328	11,292
	74	11,353	1,493	12,846
	75	8,700	1,139	9,839
	76	4,685	589	5,274
	77	1,866	302	2,168
	78	745	102	847
	79	243	51	294
	80	123	12	135
	81	50	0	50
	82	37	0	37
	83	0	0	0
	84	0	0	0
	85	0	0	0
	86	0	0	0
	87	0	0	0
	88	0	0	0
89	0	0	0	
90	0	0	0	

During the daytime 99.2% of correlated departing aircraft recorded maximum noise levels less than 79dB(A), with 85.8% registering below 76dB(A). Throughout the year 453 correlated daytime departures (0.8%) registered maximum noise levels at 79dB(A) or above.

There were no correlated departing aircraft in the daytime which recorded a maximum noise level greater than 83dB.

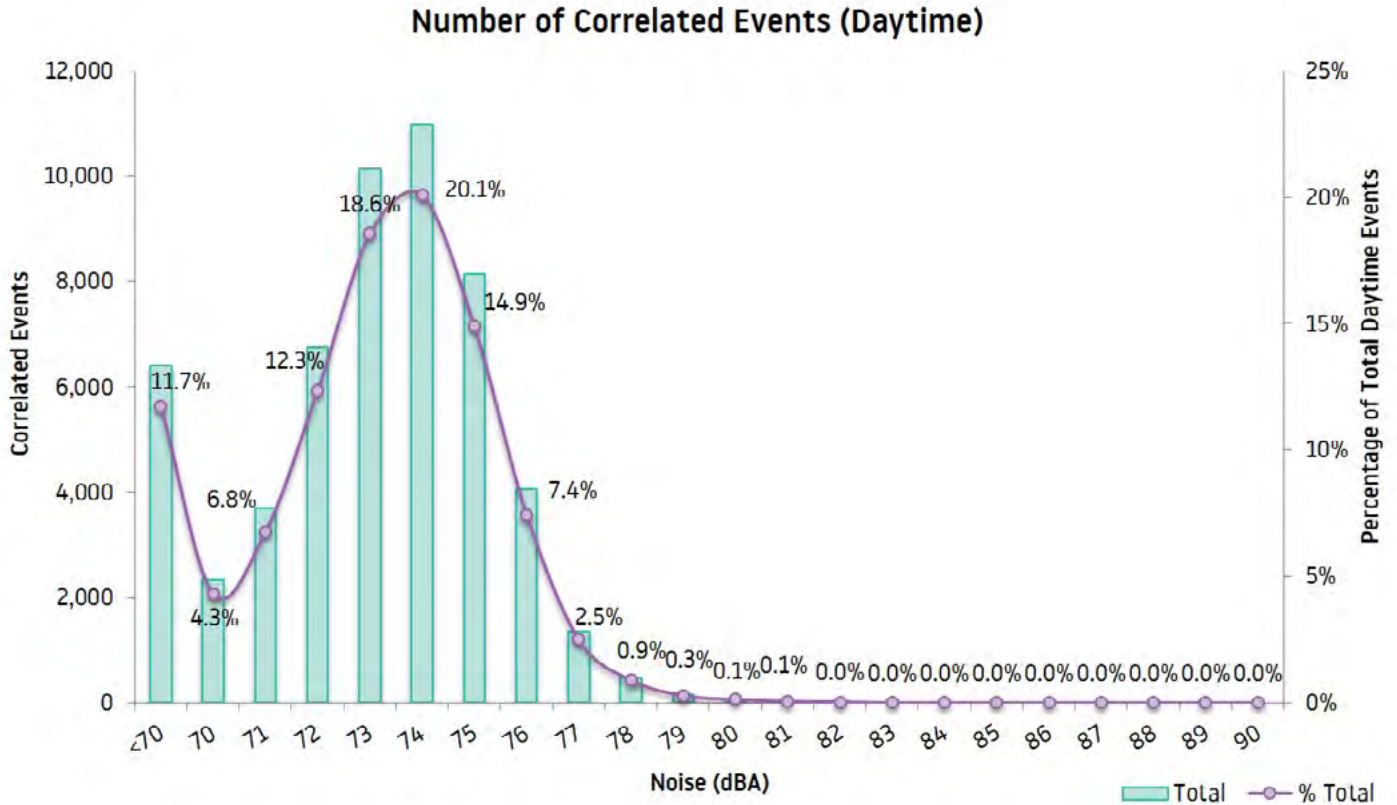
During the night 99.0% of correlated departures recorded maximum noise levels below 79dB(A), with 84.7% below 76dB(A). During the year 63 correlated night departures (0.9%) registered maximum noise levels at or above 79dB(A).

There were no correlated departing aircraft in the night time which recorded a maximum noise level greater than 81dB.

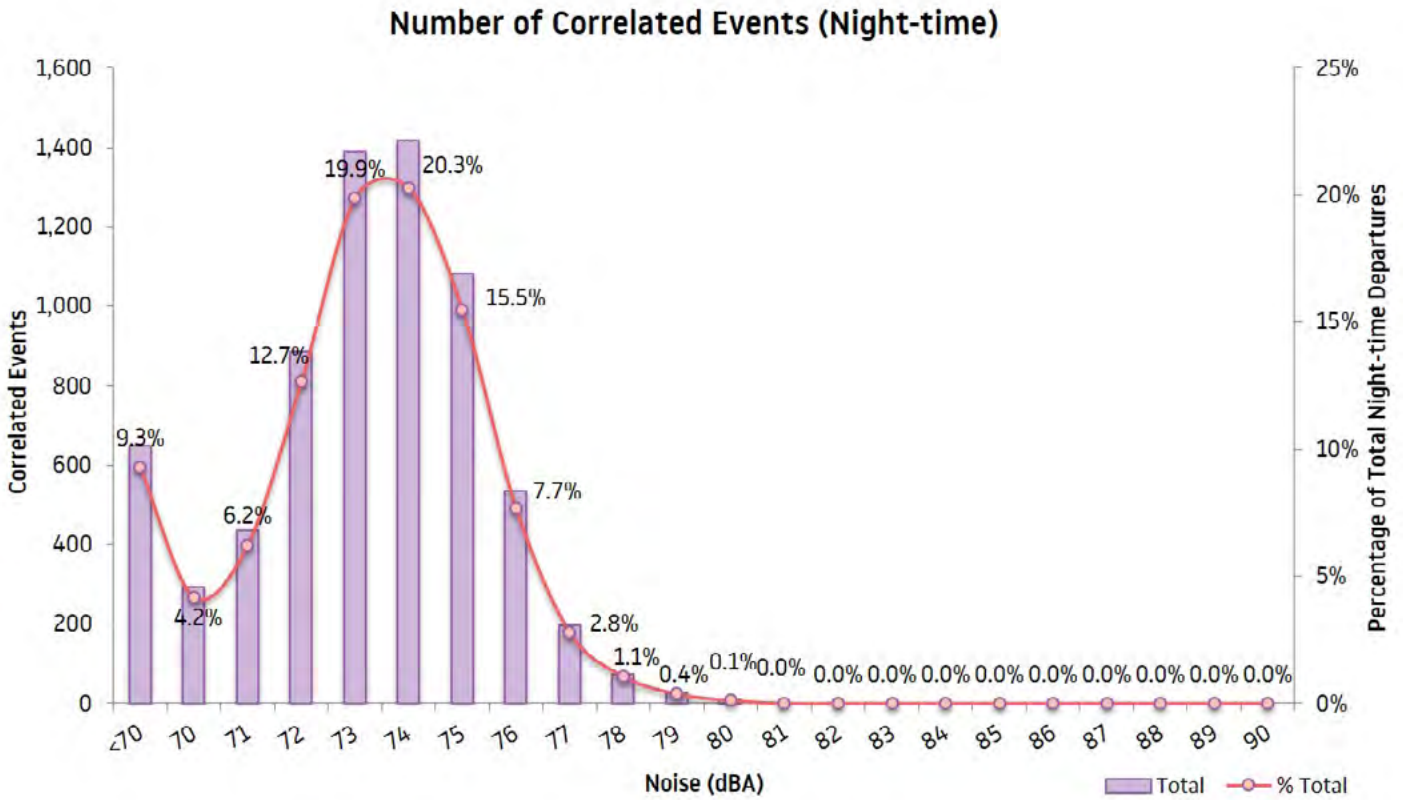
Note: This table comprises of noise measurements from NMT01 and NMT02 fixed monitors only. Readings from NMT03 have been discarded due to system downtime.

Daytime Noise

The following graph shows the number of correlated events during the daytime period (07:00hrs - 22:59hrs) compared to the total percentage of correlated events during the daytime.

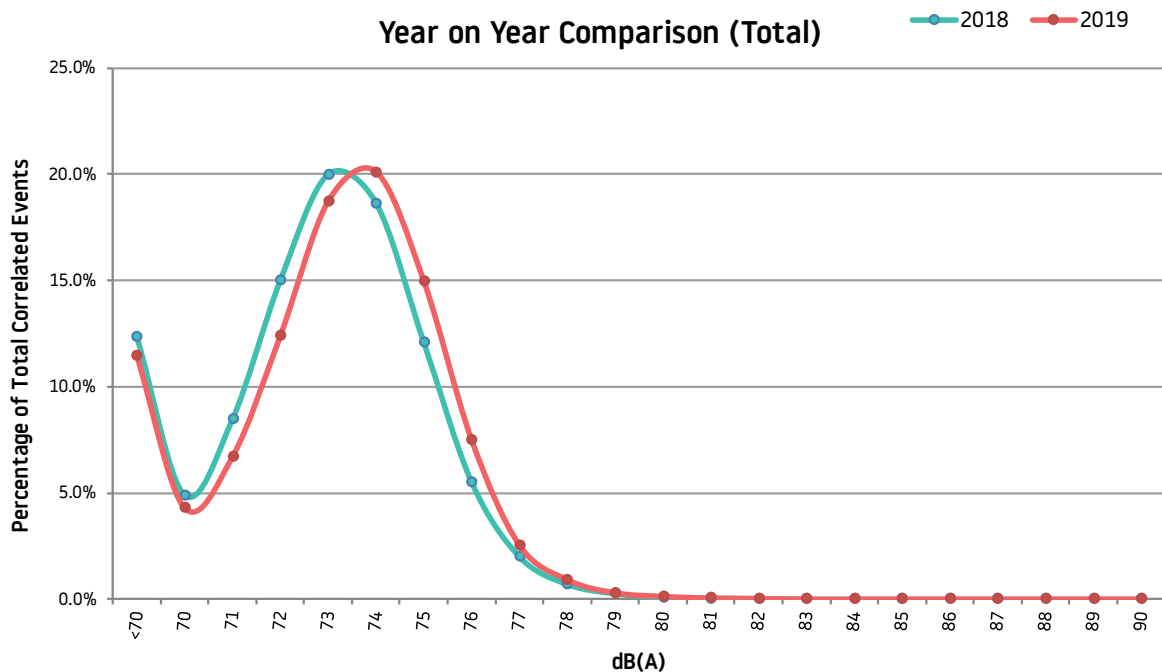


The following graph shows the number of correlated events during the night-time period (23:00hrs - 06:59hrs) compared to the total percentage of correlated events during the night-time.



Annual Comparison

The graph below shows the year on year comparison of the correlated departure noise events. The increase in noise level in 2019 was mainly due to some smaller aircraft have been replaced by larger aircraft, thus creating more aircraft noise to the surrounding area.



Noise violations during 2019

There was no daytime or night time noise violations during 2019. Although, from 1st April 2018 the fine was increased to £1,000 for a daytime noise violation and £2,000 for a night time noise violation. Noise Violation fines are passed to the London Luton airport Community Trust Fund, further details of which can be found at: <https://www.london-luton.co.uk/corporate/community/noise/supporting-lla's-community-trust-fund>

Noise Insulation Scheme

Our Noise Insulation Scheme is just one element of our noise management plan to reduce the impact of noise on those properties in Hertfordshire and Bedfordshire closest to the airport. The scheme covers both residential and non-residential properties. Depending on any existing insulation in the property, double glazing, secondary glazing and ventilation units can be provided. Rooms eligible for insulation include living rooms, dining rooms, kitchen-diners and bedrooms.

During 2019, works were carried out in properties located in south Luton, 42 properties were contacted and 34 properties accepted the insulation.

Noise Contours

Since 1989 the preferred measure of aircraft noise, recognised by UK Government, 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.

When planning permission was given in 2014 for development at London Luton Airport a number of conditions were imposed. Condition 12 requires that daytime and night-time contours are produced on an annual basis for the previous summer period based on actual aircraft movement data and for the following summer period based on predicted aircraft movement data. The areas of these contours are to be compared to the area limits contained in Condition 12.

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. 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, determined by the prevailing wind direction.

Methodology

Aircraft movement data for use in the contour production. The 2019 contour production methodology has been updated from that used for the 2018 contours. It retains the inclusion of terrain, and the use of the INM software (Version 7.0d), but the validation has been updated. The validation is now based on measured results in 2018 at the fixed noise monitors.

The exception to this is the Airbus A321neo, which operated in 2019 and is forecast to operate in 2020, but for which there are only limited measured results available as it didn't operate at Luton in significant numbers in 2018. Therefore modelled noise levels for this new type have been based on its certification noise levels when compared to the Airbus A321ceo, which it is the replacement for, as shown in the table below.

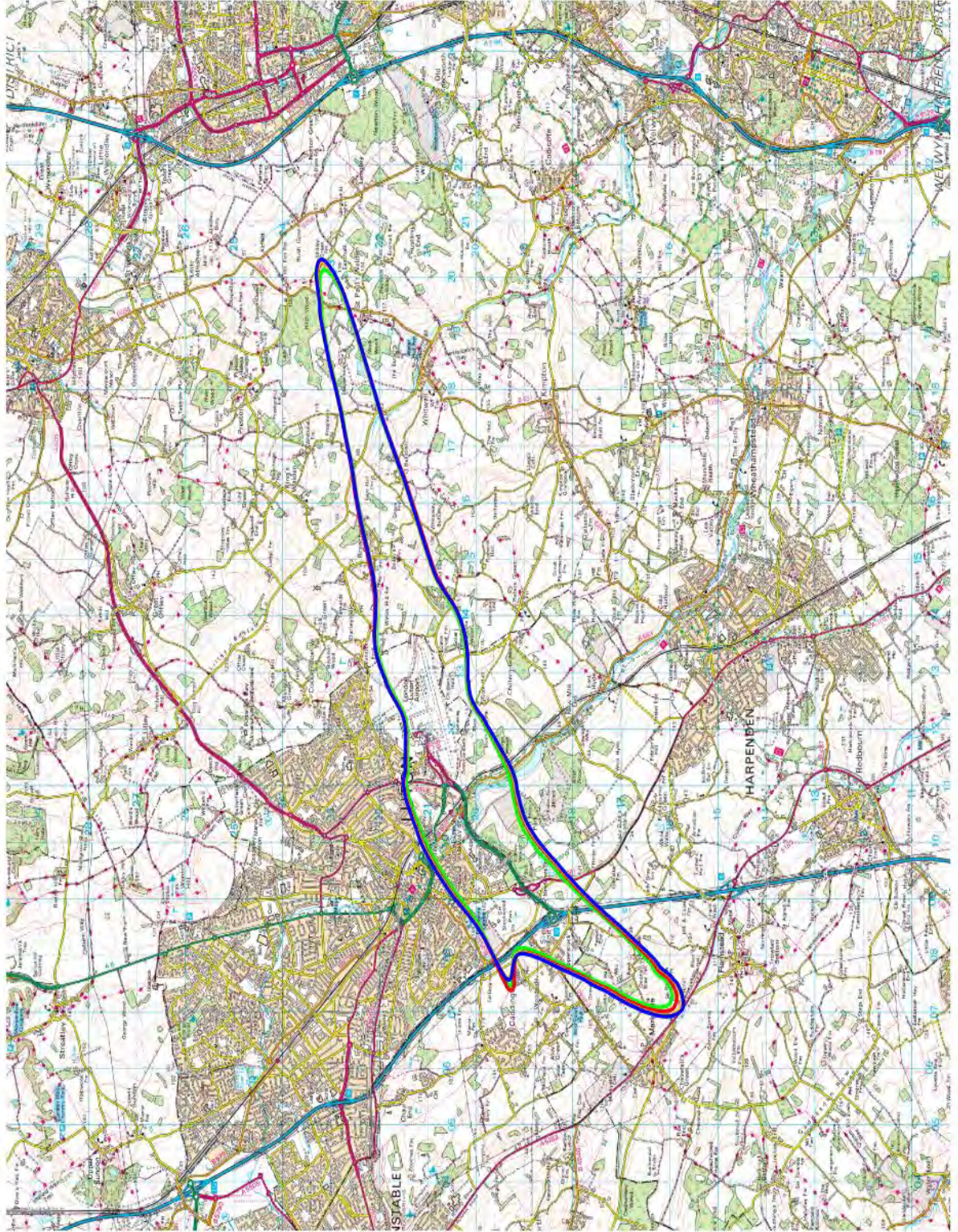
Replacement Aircraft Type	Current Aircraft Type	Noise Level Adjustment (dB)	
		Arrival	Departure
Airbus A321neo	Airbus A321	-1.8	-6.3

The 2020 contours have been produced using a long term (2015-2019) average modal split, which is shown in the table below. 2019 contours have been produced twice, once based on this long term average runway split, and also based on the actual runway usage in 2019. The 2018 contours which are included for comparison are based on the actual runway usage in 2018.

Year	% of Summer Movements	
	Runway 08	Runway 26
2018 Actual	27%	73%
2019 Actual	27%	73%
Long Term Average (2015-2019)	22%	78%

A comparison of the 2018 actual, 2019 actual, 2019 average modal and 2020 forecast daytime 57 dB LAeq,16h and night time 48 dB LAeq,8h contours has been provided. This shows that the 2018 actual, 2019 actual, 2019 average modal and 2020 forecast contours are all similar. The night time 2018 actual and 2019 actual contours are longer at the western end and slightly shorter at the eastern and south western ends compared to the 2019 average modal contours, this is due to the differences in modal split.

Summer Day time Comparison 2018, 2019 and 2020



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LEGEND:

- 57 dB Leq,16h Noise Contours,
- 2018 Actual
- 2019 Actual
- 2019 Average Modal
- 2020 Forecast

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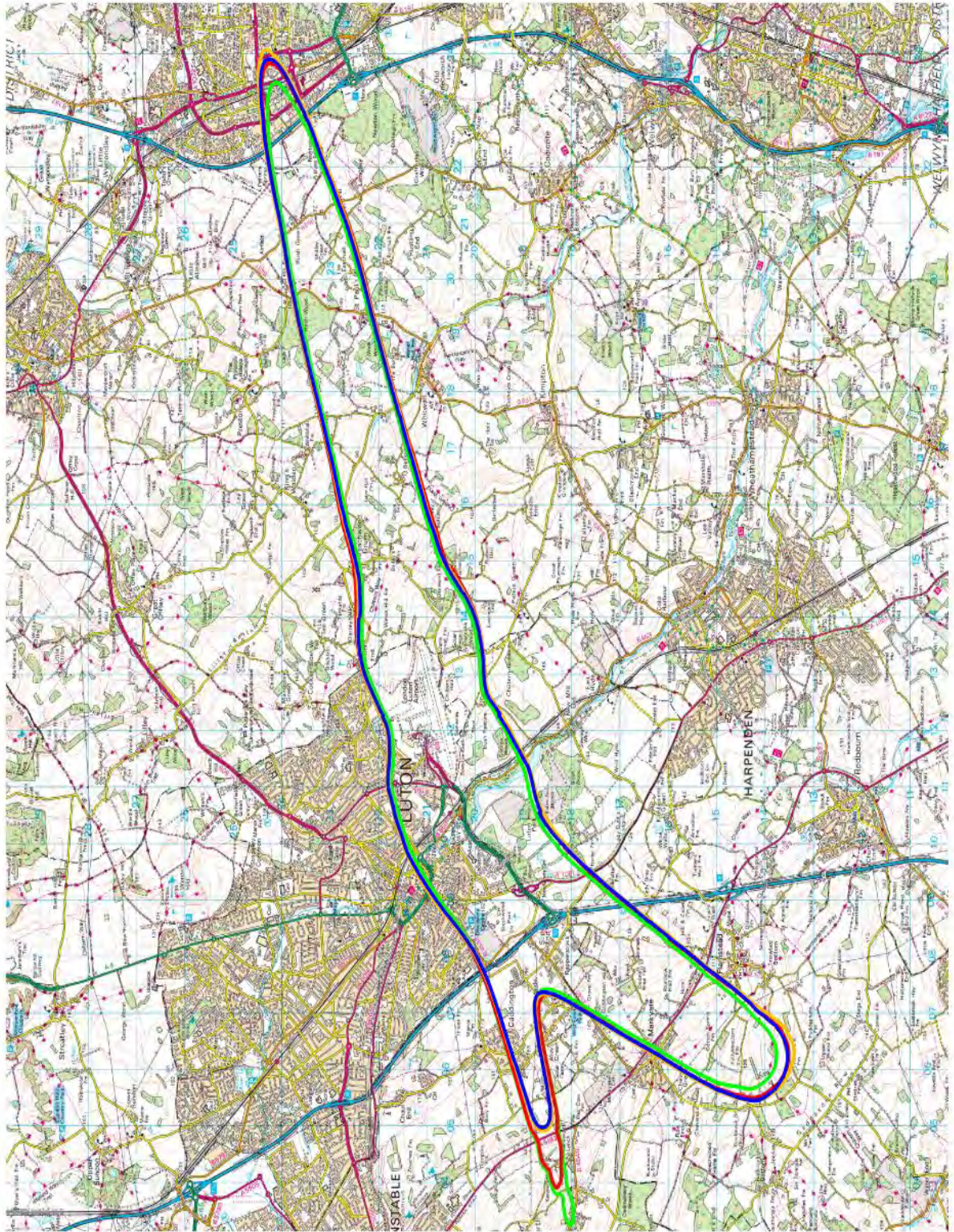
**London Luton Airport
 Regular Contouring**

**Airborne Aircraft Noise Contours
 Summer Daytime Comparison
 2018, 2019 and 2020**

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 DATE: November 2019 SCALE: 1:100000@A4

FIGURE No: **A11060/N41/07**

Summer Night time Comparison 2018, 2019 and 2020



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LEGEND:

- 48 dB Leq,eq Noise Contours,
- 2018 Actual
- 2019 Actual
- 2019 Average Modal
- 2020 Forecast

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London Luton Airport
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Airborne Aircraft Noise Contours
 Summer Night time Comparison
 2018, 2019 and 2020

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FIGURE No:

A11060/N41/08

Annual noise contours summer 2019

The table below shows the annual daytime noise contours for summer 2019 covering the standard summer period from 16th June to 15th September inclusive, using the latest version of INM software (the Integrated Noise Model) version 7.0d which is the method used by many other airports in the UK.

L _{Aeq, 16 hour} Daytime	Contour Area (km ²)						
	1984	1999	2018 actual	2019 actual	2019 average	Difference 2018-2019 (actual)	2020 (forecast)
>72	1.63	1.5	1.0	1.1	1.1	+0.1	1.2
>69	2.80	2.5	1.7	1.9	1.9	+0.2	1.9
>66	4.86	4.4	3.1	3.6	3.6	+0.5	3.7
>63	9.10	7.3	6.1	6.7	6.7	+0.6	6.9
>60	17.18	11.8	10.6	11.5	11.5	+0.9	11.8
>57	31.52	19.6	19.4	20.8	20.8	+1.4	21.3

Considering the 57 dB LAeq,16h daytime noise contour there is an increase in area of approximately 8% when comparing the 2019 actual contour with the 2018 actual contour. This increase caused an exceedance of Condition 12 which relates to the area of the daytime summer noise contour; condition 12 limits the area to 19.4km². This is largely due to the increase in daytime movements. The 2019 contours based on the long term average runway split have the same areas as those based on the actual runway usage in 2019. The 2020 daytime contours are slightly larger than those for 2019, largely due to the forecast increase in daytime movements.

The table below shows the annual night time noise contours for summer 2019 covering the standard summer period from 16th June to 15th September inclusive, using the latest version of INM software (the Integrated Noise Model) version 7.0d which is the method used by many other airports in the UK.

L _{Aeq, 8 hour} Night-time	Contour Area (km ²)						
	1984	1999	2018 actual	2019 actual	2019 average	Difference 2018-2019 (actual)	2020 (forecast)
>69	1.39	1.8	0.7	0.8	0.8	+0.1	0.8
>66	2.42	3.0	1.1	1.3	1.3	+0.2	1.2
>63	4.01	5.2	1.9	2.2	2.2	+0.3	2.1
>60	7.06	8.3	3.7	4.4	4.4	+0.7	4.2
>57	13.05	13.2	6.8	8.0	8.0	+1.2	7.6
>54	24.48	21.6	12.6	14.6	14.6	+2.0	14.0
>51	44.92	36.0	23.0	26.0	26.1	+3.0	25.0
>48	85.04	60.6	40.2	44.2	44.0	+4.0	42.6

Considering the 48 dB LAeq,8h night time noise contour there is an increase in area of approximately 10% when comparing the 2019 actual contour with the 2018 actual contour. The 2019 night time contour area also exceeded the limit as detailed in Condition 12 (the limit is 37.2km²). The 2019 contours based on the long term average runway split have very similar areas to those based on the actual runway usage in 2019. The 2020 night time contours are smaller than those for 2019, largely due to the forecast decrease in night time movements.

Contour population counts

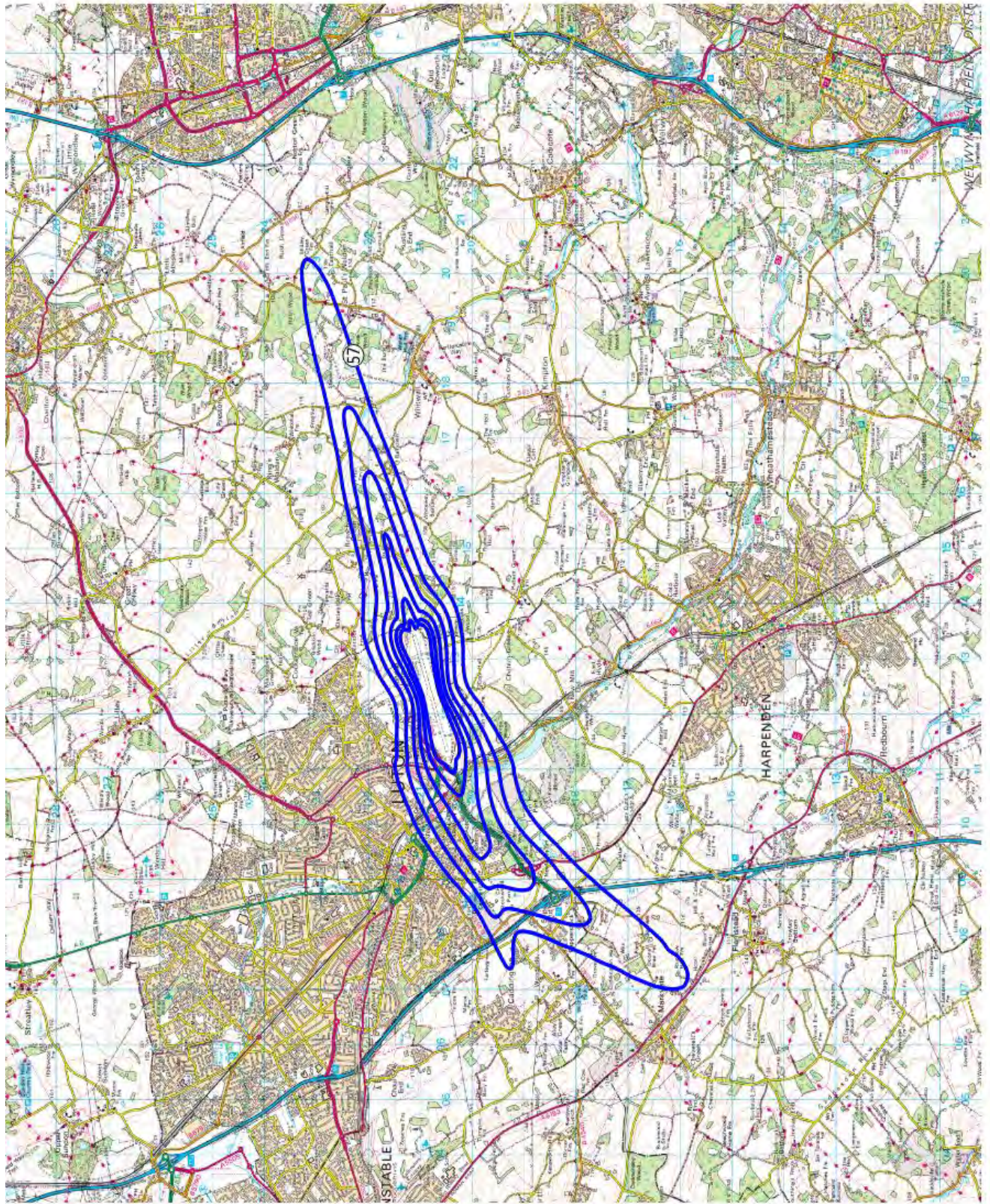
The population counts shown in the tables below were calculated using the CACI Ltd, 2018 postcode database. Each postcode in the database is described by a single geographical point, and if this point is within a contour then all of the dwellings and population in the postcode are counted. Please note, the population and dwellings data has been rounded to the nearest 50.

$L_{\text{Aeq, 16 hour}}$ Daytime	2018 actual		2019 actual	
	Dwellings	Population	Dwellings	Population
>72	0	0	0	0
>69	0	0	0	0
>66	9	22	11	27
>63	550	1,400	700	1,950
>60	1,650	4,350	2,050	5,150
>57	3,950	9,100	4,550	10,550

$L_{\text{Aeq, 8 hour}}$ Night-time	2018 actual		2019 actual	
	Dwellings	Population	Dwellings	Population
>69	0	0	0	0
>66	0	0	0	0
>63	0	0	0	0
>60	150	400	150	450
>57	750	2,050	800	2,150
>54	1,950	5,000	2,450	6,150
>51	4,500	10,300	5,100	11,800
>48	8,050	19,150	8,950	21,250

The population and number of dwellings within the contours have increased, in lined with the contour area.

Annual Day Noise Contours Summer 2019 (actual)



LEGEND:

Noise Contours,

57 to 72 dB Leq,16h in 3 dB steps

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Airborne Aircraft Noise Contours
 2019 Summer Actual Daytime

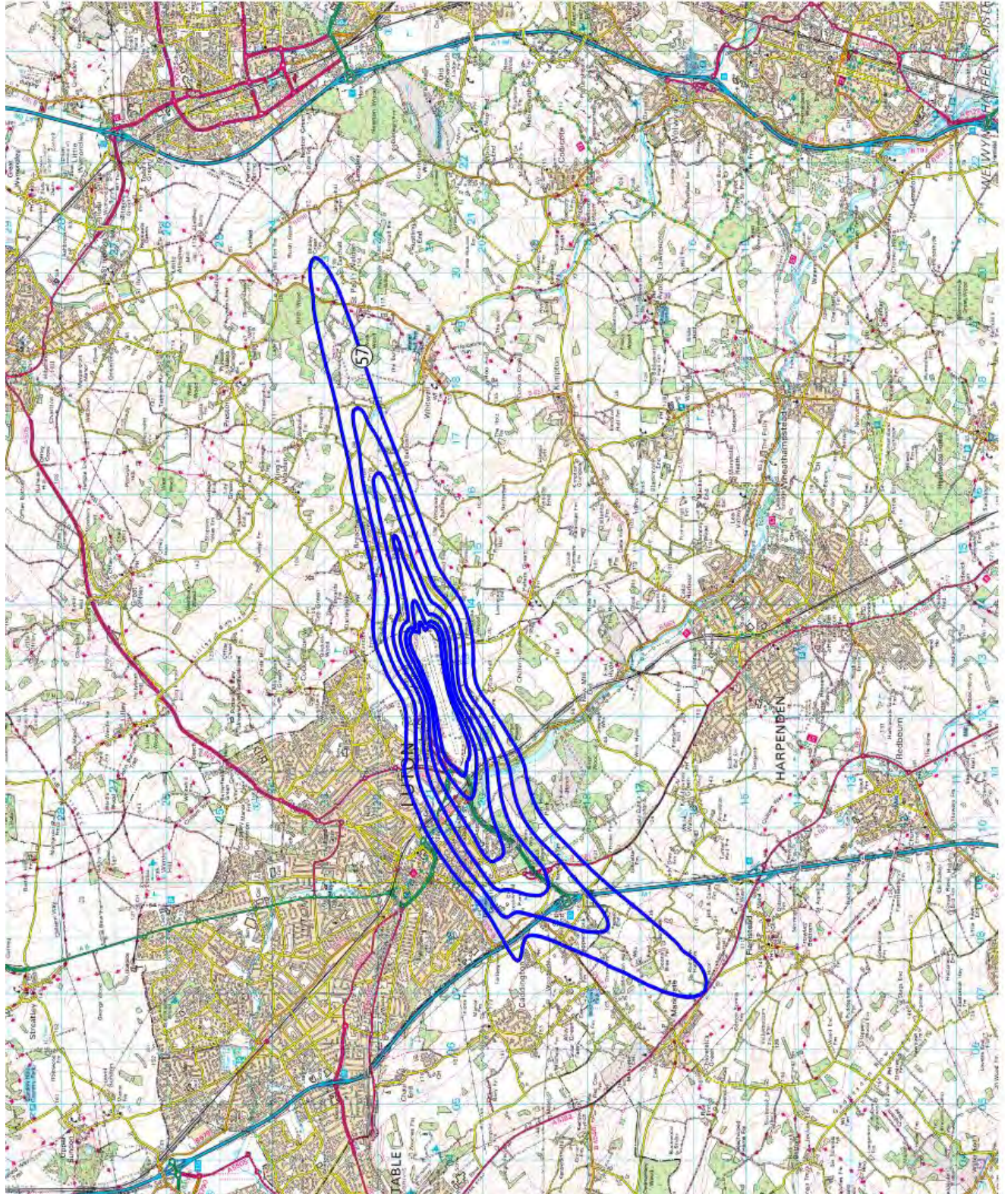
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FIGURE No:

A11060/N41/0

Annual Day Noise Contours Summer 2019 (average)



Supplied by the manufacturer, 1811 40447

LEGEND:

Noise Contours,

57 to 72 dB $L_{Aeq,16h}$ in 3 dB steps

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Airborne Aircraft Noise Contours
2019 Summer Average Modal Daytime

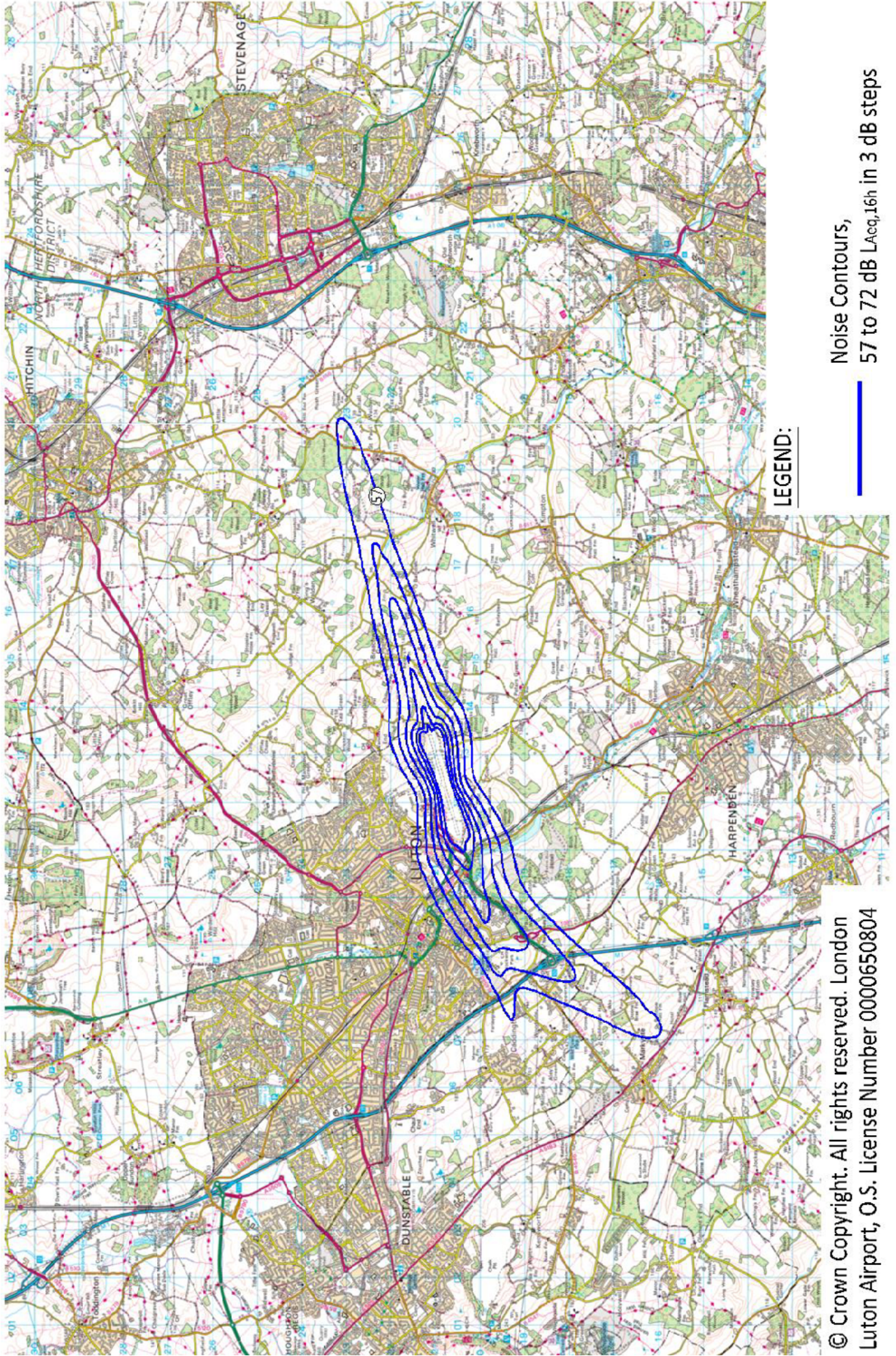
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DATE: November 2019 SCALE: 1:100000@A4

FIGURE No:

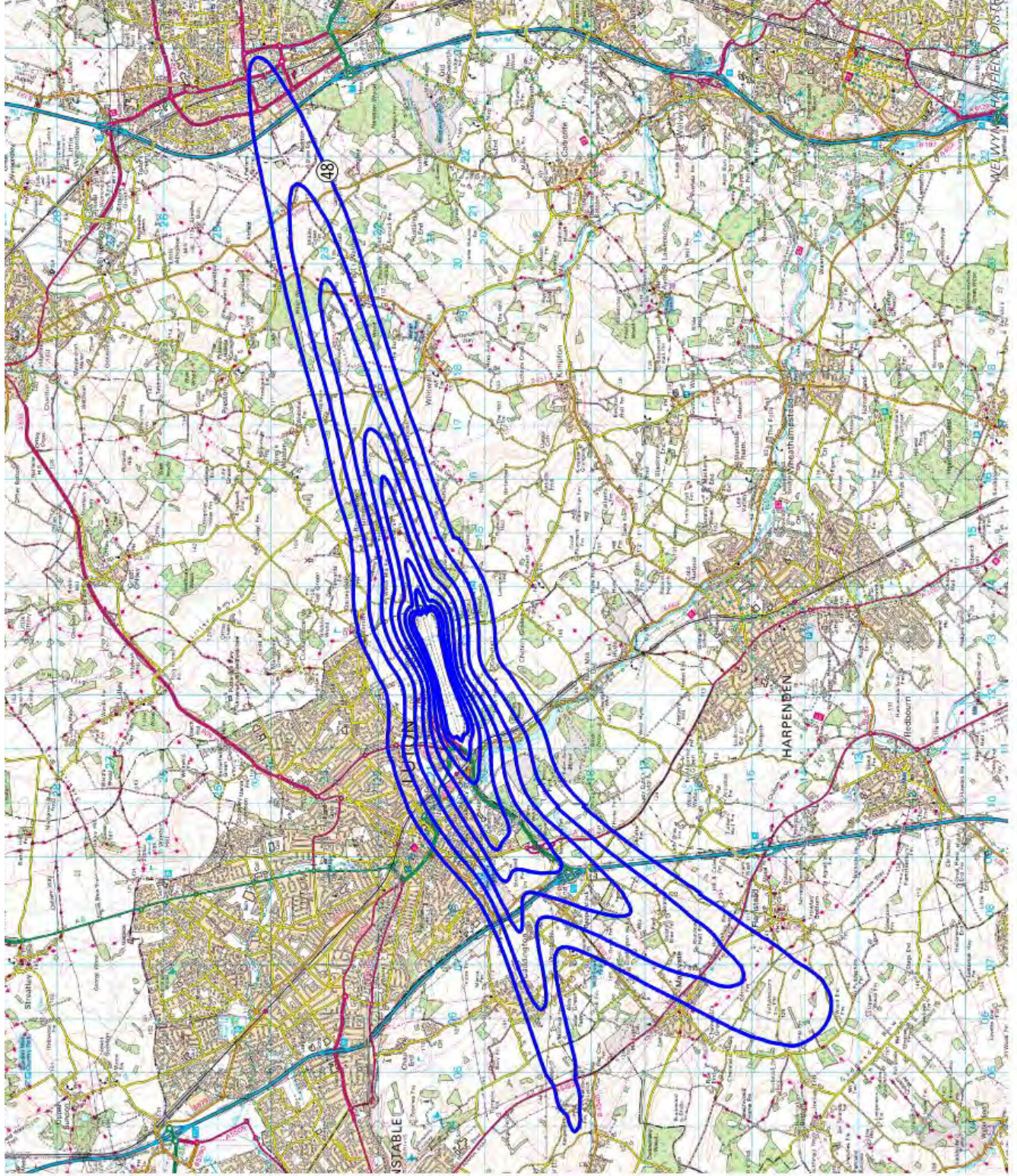
A11060/N41/03

Annual Day Noise Contours Summer 2018



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Annual Night Noise Contours Summer 2019 (actual)



LEGEND:

Noise Contours,

48 to 69 dB $L_{Aeq,sh}$ in 3 dB steps



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**London Luton Airport
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**Airborne Aircraft Noise Contours
2019 Summer Actual Night time**

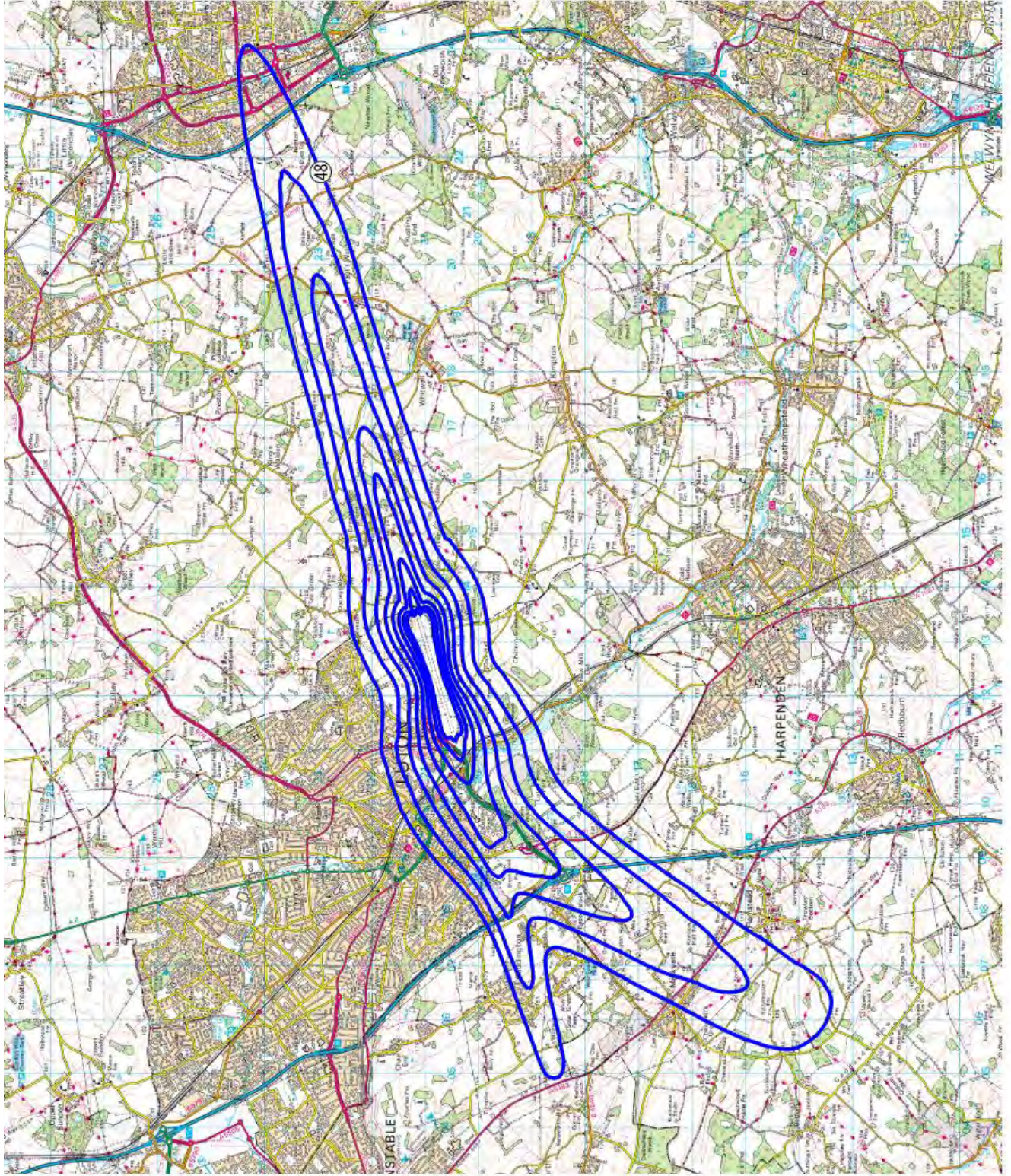
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DATE: November 2019 SCALE: 1:100000@A4

FIGURE No:

A11060/N41/02

Annual Night Noise Contours Summer 2019 (average)



LEGEND:

Noise Contours,

48 to 69 dB Leq,sh in 3 dB steps

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Regular Contouring**

**Airborne Aircraft Noise Contours
2019 Summer Average Modal Night time**

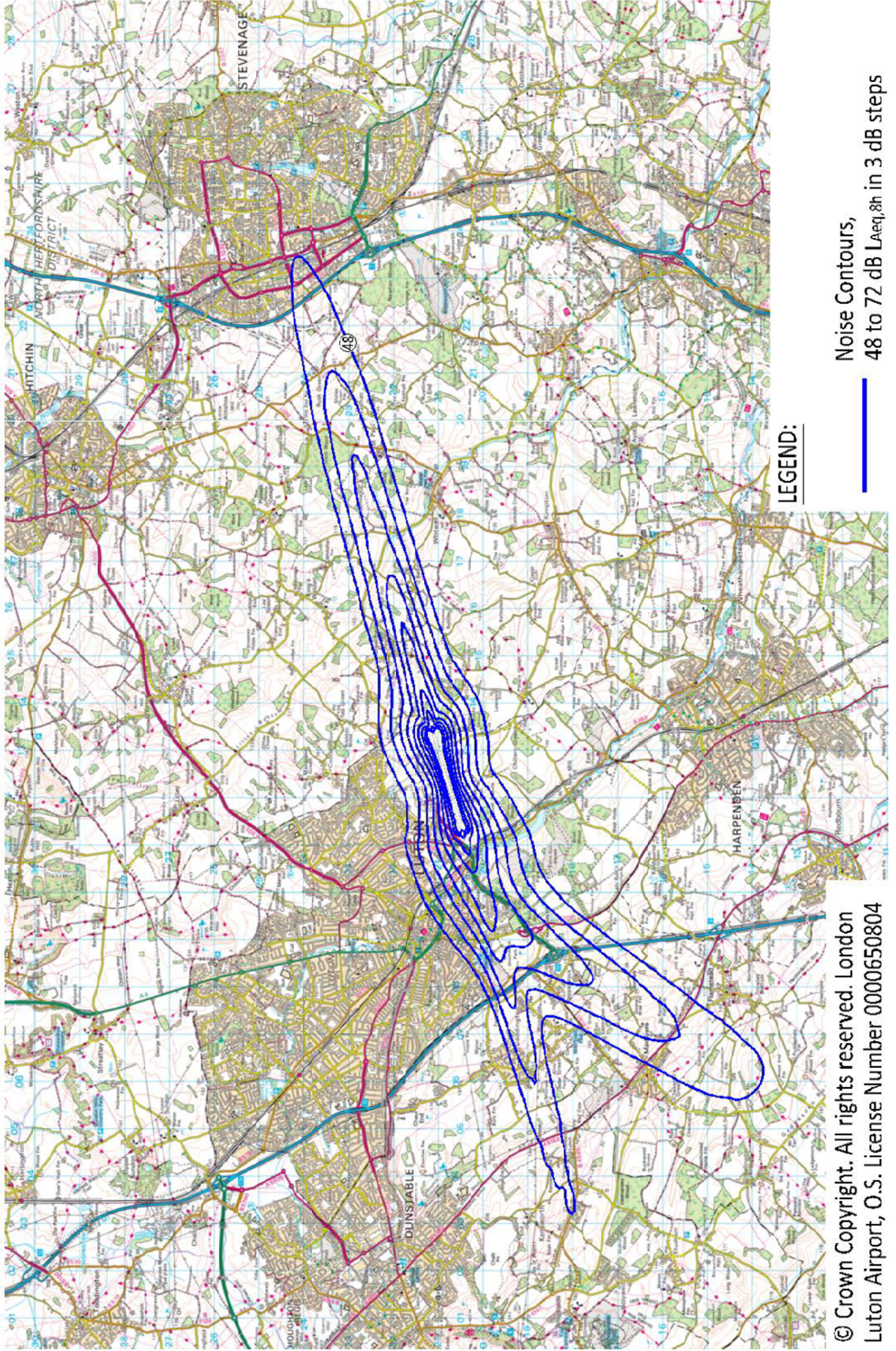
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FIGURE No:

A11060/N41/04

Annual Night Noise Contours Summer 2018



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Annual Noise Contours 2019

The annual Lden noise contours for 2019 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.

Compared to annual summer 2019 noise contours Lden is an A-weighted, Leq noise level, measured for an average 24 hr day between 1st January and 31st December 2019, 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 2019.

Annual Lden Noise Contour Results

Contour Value (dB(A) L _{den})	Contour Area (km ²)		Population ¹		Dwellings ²	
	2018	2019	2018	2019	2018	2019
>75	0.9	1.0	0	0	0	0
>70	2.1	2.3	0	0	0	0
>65	6.3	7.1	1,500	1,900	550	700
>60	17.0	18.5	7,100	8,300	2,950	3,450
>55	43.0	45.6	20,400	22,000	8,550	9,400

Annual Lnight Noise Contour Results

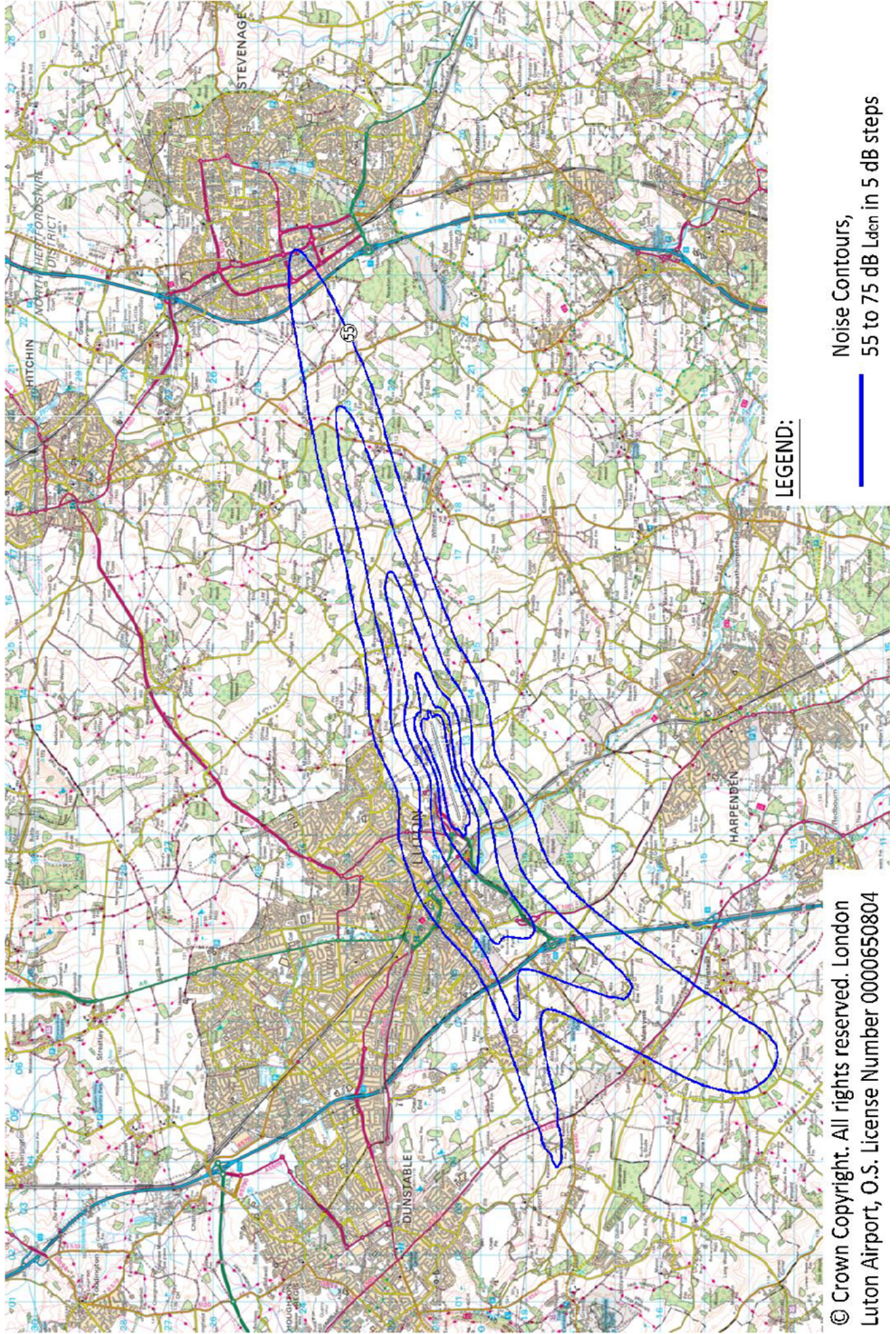
Contour Value (dB(A) L _{night})	Contour Area (km ²)		Population ¹		Dwellings ²	
	2018	2019	2018	2019	2018	2019
>66	1.0	1.1	0	0	0	0
>63	1.6	1.8	0	0	0	0
>60	3.0	3.5	<100	<100	<50	<50
>57	5.6	6.6	1,300	1,500	500	550
>54	10.1	11.7	3,100	4,300	1,150	1,650
>51	18.9	21.3	8,100	9,300	3,450	4,000
>48	33.7	36.9	15,000	17,300	6,350	7,300

As can be seen from the tables above, the areas of the Lden and Lnight contours have increased. The night contours have increased the most in line with what would be expected due to the increase in night passenger jet movements. The Lden contours have increased slightly less due to the slight decrease in evening movements. The population and number of dwellings within the contours have also increased, due to the greater contour areas.

¹ - Population counts rounded to nearest 100

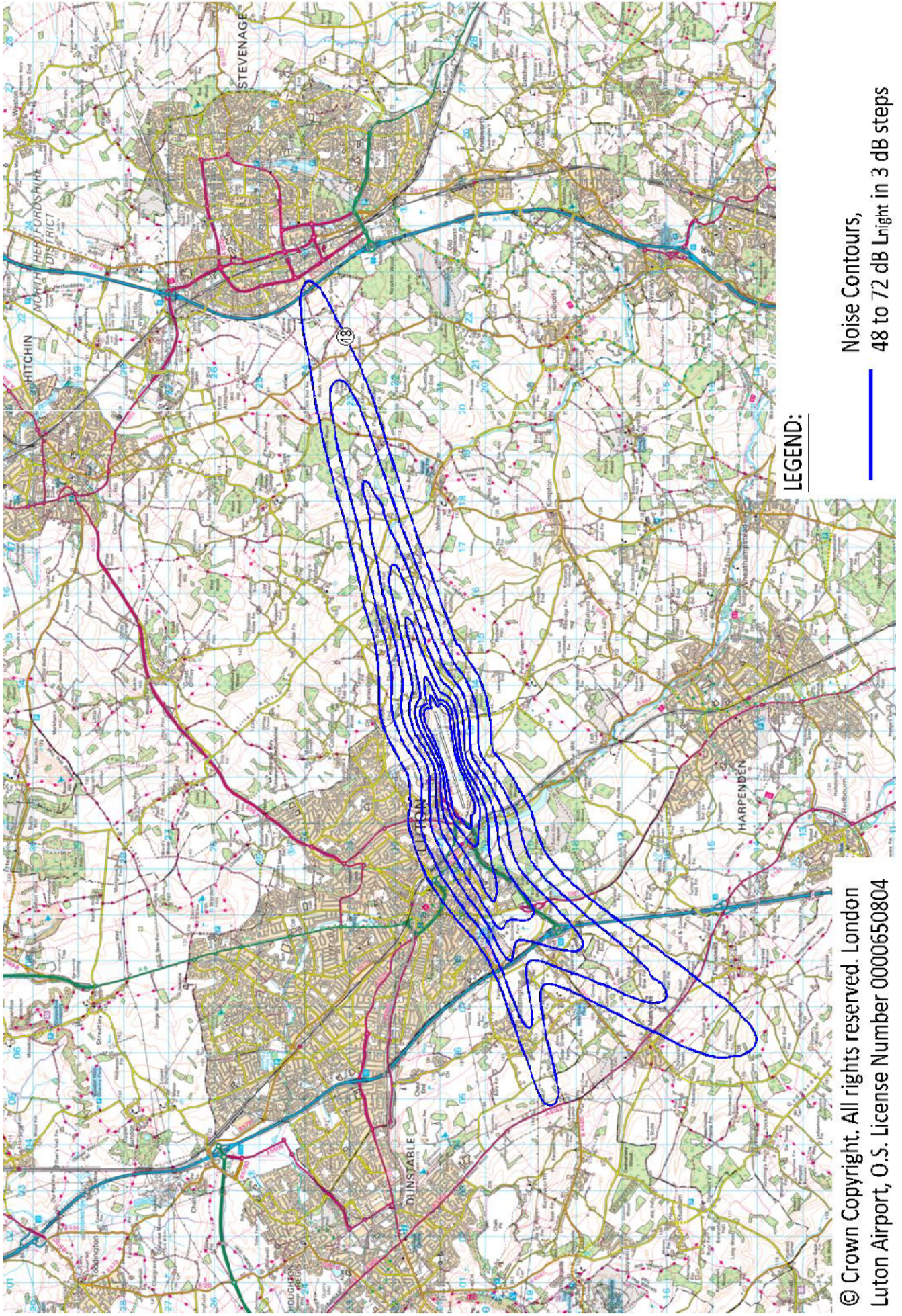
² - Dwelling counts rounded to nearest 50

Annual L_{den} Noise Contours 2019



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Annual L_{night} Noise Contours 2019



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Correspondence and Complaints

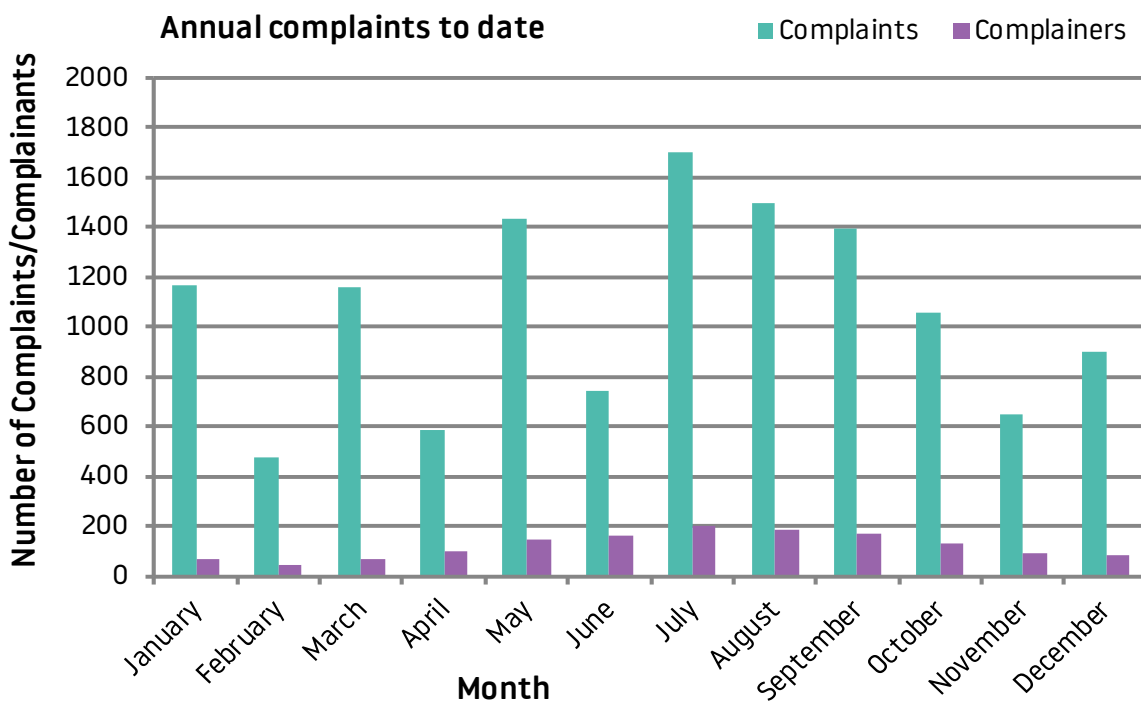
Complaint statistics can be extremely difficult to interpret as people’s tolerance of noise and their perception of what causes annoyance varies widely. It is highly subjective and differs between neighbours experiencing the same levels of noise.

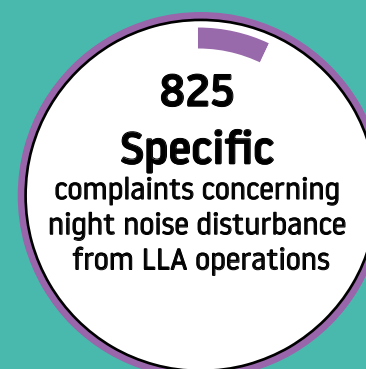
Complaints are reported in two forms – general disturbance and specific disturbance. A general disturbance relates to a complaint that does not specify a time period, examples of this type of complaint includes frequency, air quality and ground noise. A specific complaint relates to a complaint which specifies the time which can be correlated to an aircraft, example complaints of this type include too low, too loud, night flight and off-track. If a single piece of correspondence contains multiple specific disturbances, this will be logged as a general complaint regarding frequency.

Total complaints relating to LLA aircraft operations

	2018	2019	% change
Total No. of Complaints relating to LLA aircraft operations	8,275	12,735	54%
No. of Complainants	691	664	-4%
No. of General Complaints	1,866	1,478	-26%
No. of Specific Complaints	6,409	11,257	76%
Average No. of Complaints per Complainant	12.0	19.1	59%
No. of Aircraft Movements per Complaint	16.5	11.1	-32%

During 2019 a total of 12,735 complaints (on average 34.9 complaints per 24 hours) relating to LLA aircraft operations were received, compared with 8,275 complaints in 2018. Out of the total complaints 68% were registered by the 20 most regular complainants and 40% from just five individuals. A further 187 complaints received were not attributable to LLA traffic. The figure below shows the complaints statistics throughout 2019, more complaints were received in the July and August, correlating with an increase in aircraft activity.



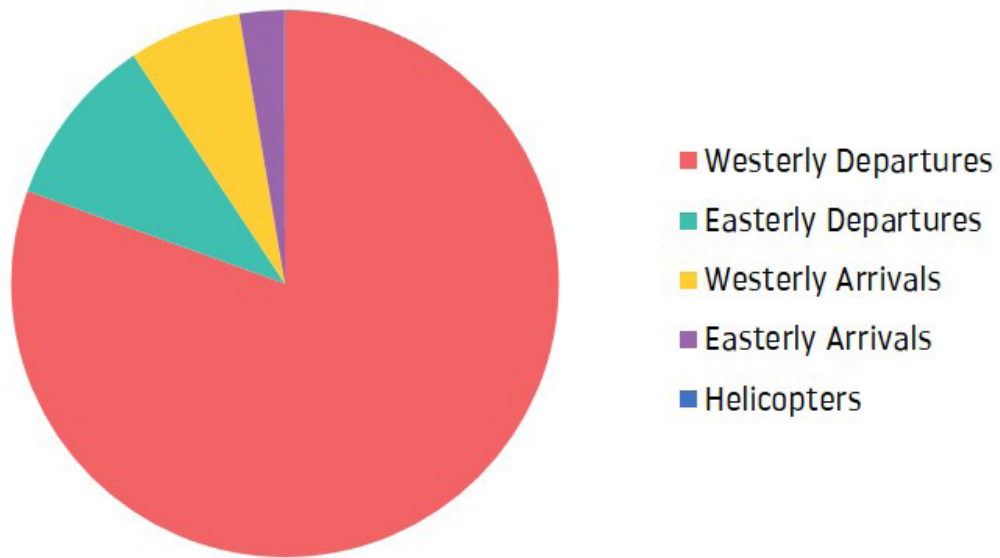


Complaints by aircraft type

Of the 12,735 complaints relating to LLA aircraft operations registered during the year, 10,454 complaints (82%) were clearly correlated to a specific aircraft type, although many complaints were of a general nature. The table below shows aircraft types generating complaints.

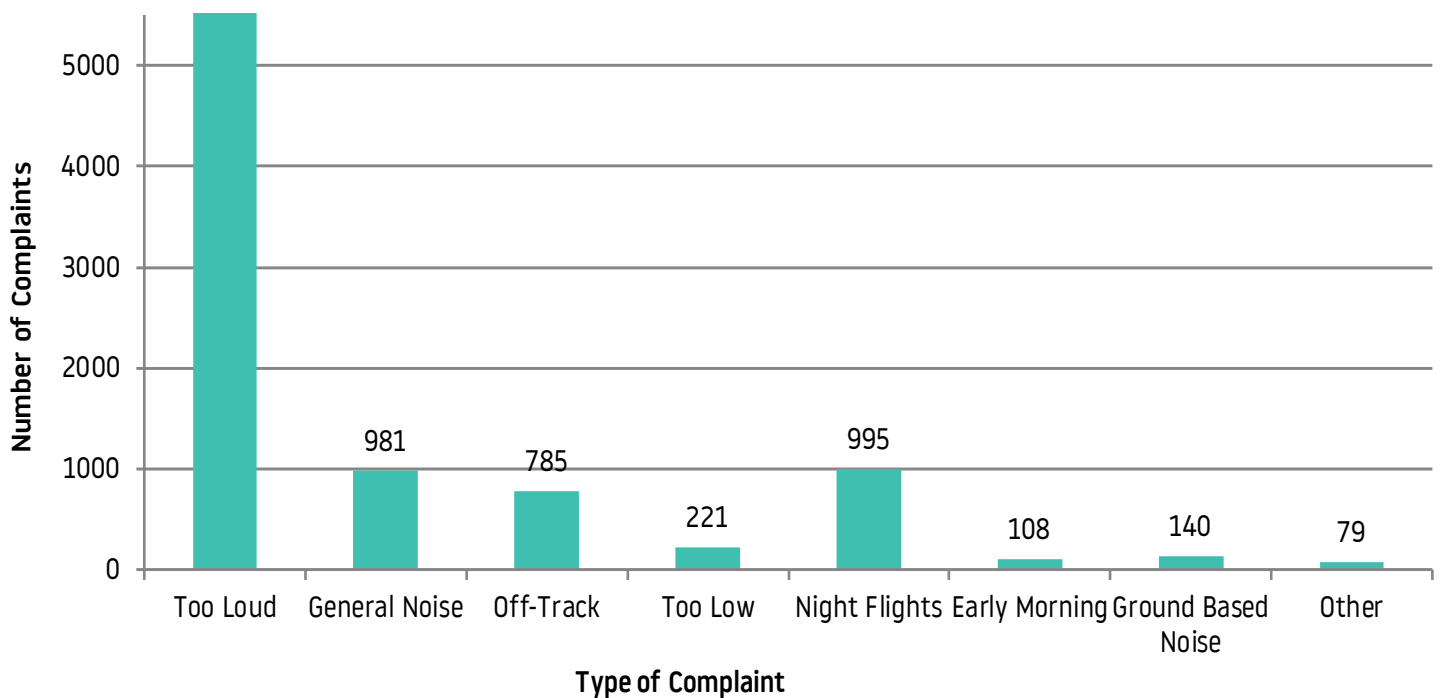
Aircraft Type	No. of Correlated Complaints	% of Correlated Complaints	Annual No. of Movements of Aircraft Type	Movements of Aircraft Type per Correlated Complaint
A319	705	6.7%	21,642	31
A320 Neo	206	1.9%	6,013	29
A320	3,065	29.3%	44,074	14
A321	1,713	16.4%	18,922	11
A321 Neo	117	1.1%	1,434	12
B737-800	789	7.6%	16,683	21
A306 (Cargo)	235	2.2%	1,758	7
B737-400	67	0.6%	598	9
GLF4/GLF5/GLF6	82	0.8%	4,380	53
B757 & B767	106	1.0%	1,440	14
B737-300	11	0.1%	152	14
B737-900	73	0.7%	550	8
Helicopter	3	0.03%	578	193
CL30/CL60	68	0.7%	1,913	28
GLEX/GL5T	79	0.8%	3,562	45
Other Aircraft	3,135	30.0%	17,782	6

Nature of Disturbance

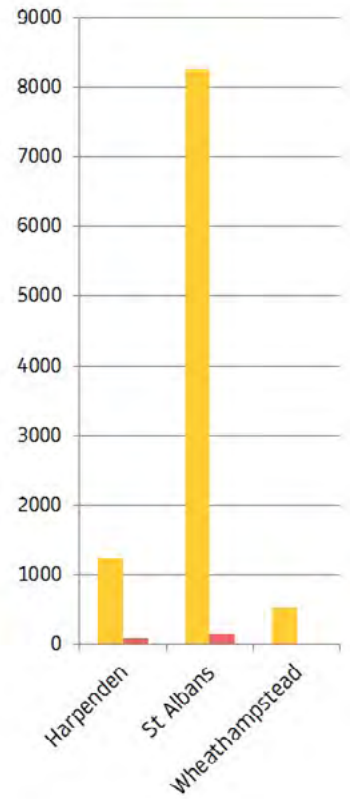
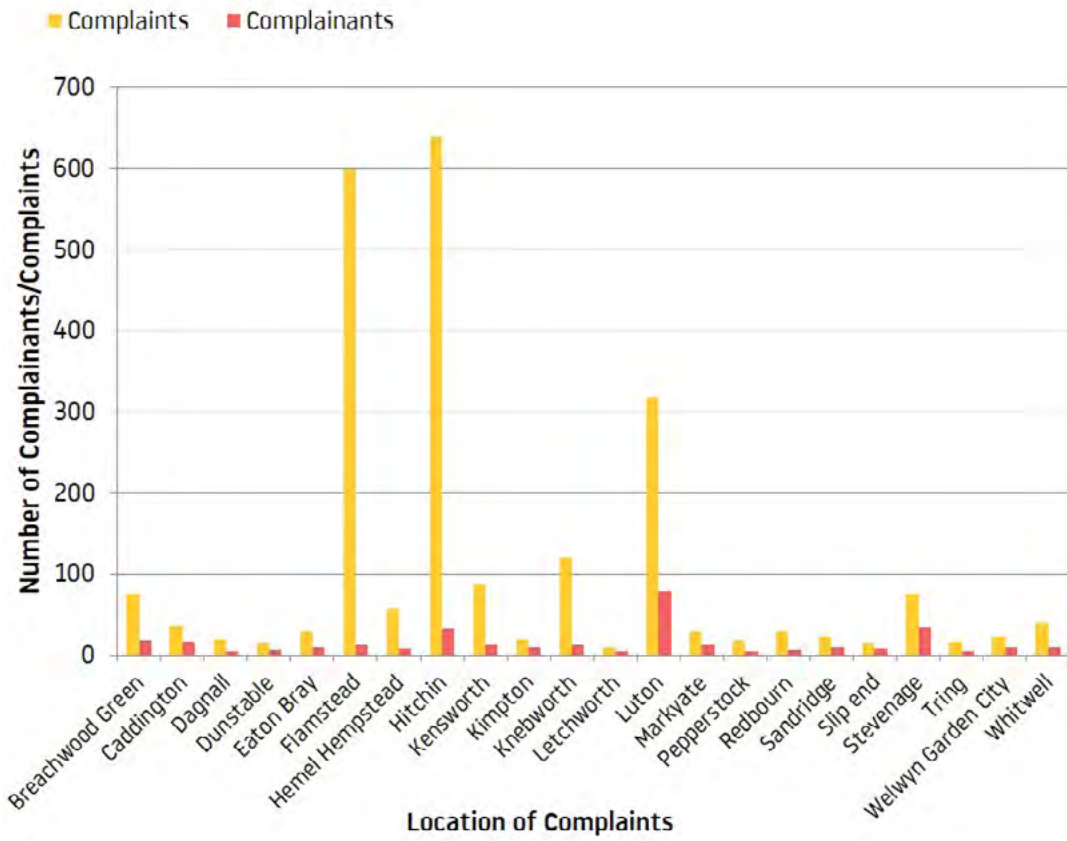


Within the 8,415 specific complaints correlated to aircraft movements concerning westerly departures, 8,155 reported specific aircraft following the Match/Detling route, 172 related to aircraft on the Compton route and 72 related to aircraft following the Olney heading. 16 other complaints involved positioning flights following off-airways flight routes. Of the 1,064 complaints specifically attributed to easterly departures 751 related to aircraft following the Compton heading, 35 related to aircraft on Olney flight route and 270 to aircraft on the Match/Detling heading. A further 8 complaints involved positioning flights following off-airways flight routes.

Out of the total 972 complaints correlated to specific arriving aircraft, 695 related aircraft arriving at the airport during westerly operations and 277 complaints related to easterly arrivals.



Location of Complainants (5+)



Communication method

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

Communication Method	% of Total Complaints
TraVis	55%
Email	39%
Telephone	6%
Letter	0%

Any concerns relating to aircraft operations associated with London Luton Airport can be reported to the Flight Operations Team by the following means:

Postal Address	Flight Operations London Luton Airport Percival House Percival Way Luton Beds LU2 9NU
Direct Telephone	(01582) 395382 (24 hours)
Direct email	noise.enquiries@ltn.aero
TraVis	www.travisltn.topsonic.aero

Complaints analysis

During 2019 there was an increase in complaints and a decrease in complainants compared to 2018.

- A large number of complaints were generated by a small number of people. The 20 most regular complainants in 2019 created 68% of total complaints.
- Out of the specific complaints that were reported, the main reason that was that aircraft were too loud, this reason accounted for 74% of the complaints.
- As winds dictated westerly operations for 70% of the time, the largest percentage of complaints related to aircraft operations during westerlies, this is in line with previous years.
- High numbers of complaints were recorded from specific locations, for example Harpenden, St Albans and Wheathampstead. Complaints from these areas accounted for 79% of total complaints. In these areas there is a heightened awareness of aircraft, particularly in relation to the growth on this route.
- St Albans recorded the highest number of complaints with 8,244 complaints in 2019; of the 8,244 complaints 5,009 (61%) were recorded from 5 individuals.

Community Relations

Through the London Luton Airport Consultative Committee (LLACC), which meets every quarter, London Luton Airport maintains a close working relationship with representatives of its local authorities and resident groups. Information on the Consultative Committee including meeting minutes and its representatives can be found at the following link: <http://www.llacc.com/>

In 2019, the Flight Operations Team continued the Public Surgery programme. These drop-in events allow local residents to talk to the team face to face to discuss any concerns regarding the impact of LLA's operations. Over 150 residents attended to the Public Surgeries which were held in Breachwood Green, South Luton, Edlesborough, Stevenage, Harpenden and Leighton Buzzard. These will continue to be scheduled in 2020, details of upcoming surgery events can be viewed [here](#).

The Flight Operations team, held meetings with Kings Walden Parish Council, a member of LADACAN and a member of Bedfordshire Association of Town and Parish Councils. Additionally, members of the team attended meetings in the community with local residents, as well as attending Bedfordshire Association of Town and Parish Councils AGM and St Albans Parish Council Conference. Furthermore, invitations are often extended to local residents and LLACC members to visit the Flight Operations Team for a demonstration of the Aircraft Noise & Track Monitoring System, to discuss specific concerns and to view the specific tracks of LLA aircraft operations in their area.

Responsible Business Strategy

We finalised our Responsible Business Strategy in 2019, setting our commitments on environmental, social and business ethics at the airport.

The strategy concentrates on six key areas, supported by a governance and management structure which provides leadership and resources to manage the material responsible business issues. The six focus areas are:

- Ensure Environmental Responsibility and Efficiency
- Community Engagement: A healthy today and a skilled tomorrow
- A Safe and Secure Airport
- Grow with our People
- Deliver Great Customer Experience
- Sustainable Supply Chain

Community Engagement

Following a review in 2018 of how we engage and support our community, we continue to recognise the critical role of our local community. Our operations are intrinsically linked to the community's wellbeing and future prosperity. The proximity to residential areas means that impacts such as noise, produced by aircraft and airport operations, has the potential to adversely impact the life of people living nearby and under its flight paths. Whilst schemes exist to mitigate noise, it cannot be completely eliminated. Further, we recognise that our futures are intertwined; we prosper together. Our Community Engagement programme therefore aims to ensure those living close by also see the benefits of a successful airport. Thus, our focus for community engagement is promoting a healthy life, and supporting skills development of the local community.

In 2019 the funding for the airport's Community Trust Fund was increased to £150,000, supporting beneficiaries across Hertfordshire, Bedfordshire and Buckinghamshire. We were in our second year of the two-year charity partnership with Macmillan Cancer Support and once again raised more than £45,000 this year, exceeding our year two target of £80k.

Our school engagement programme continued with partnerships with the Prince's Trust and the Launch Group delivering two 'Get into Airports' programmes for unemployed people aged 18-30.

Noise Action Plan

LLA's Noise Action plan is valid from 2019- 2024, the full document can be downloaded [here](#).

1: Operational Procedures

Ref:	Action	Impact	Timescale	Performance Indicator	Numbers Affected	Target	Progress to date
1.1	Reduce the Maximum Noise Violation Limits (NVL) for departing aircraft and bi-annually review the penalties to ensure it remains effective in seeking to reduce departure noise.	Departure Noise	2020	Reduction of NVL's.	Residents within and beyond 55dB L_{den}	Reduce NVL's to 80dB during the day time and 79dB during the night-time by 2020.	Ongoing-reduction planned from 1st Jan 2020
1.2	We will work with our airline partners to improve performance relating to Continuous Descent Approach (CDA) with the aim of reducing the noise impact to the communities below.	Arrival Noise	Ongoing	CDA Compliance.	Residents within and beyond 55dB L_{den}	92% compliance by 2020. 95% compliance by 2022.	Ongoing - new target from 1st Jan 2020
1.3	We will identify and act on opportunities to minimise noise through modernisation of the airspace structure working with both community and industry partners.	Departure/Arrival Noise	Ongoing	Progress through CAP 1616 process.	Residents within and beyond 55dB L_{den}	Submit Airspace Change Proposal to the CAA by 2022.	Ongoing - Stage 1 of FASI-S change complete in 2019.
1.4	Work with Air Traffic Control, airlines and local communities stakeholders to explore opportunities to facilitate more continuous climb operations (CCO).	Departure Noise	2019-2023	Evidence of work.	Residents within and beyond 55dB L_{den}	Explore opportunities and make appropriate changes to facilitate more CCO's.	Ongoing
1.5	Undertake a review of Noise Abatement Departure Procedures used at London Luton Airport to evaluate their effectiveness and work with our airline partners to identify and implement improvements.	Departure Noise	2019	Evidence of the review.	Residents within 55dB L_{den}	To assess the effectiveness and establish targets for noise reduction.	Incomplete - new target to be complete by end of 2020.
1.6	Review and promote the Arrivals Code of Practice and Departures code of Practice and work with our airline partners to set minimum performance criteria and a method for measuring performance.	Arrivals/Departure/Ground Noise	2019-2023	Evidence of review and new performance criteria.	Residents within and beyond 55dB L_{den}	Set minimum performance criteria by Q2 2019.	Incomplete - new target to be complete by end of 2020.
1.7	Continue to promote and encourage the use of single engine taxi procedures at London Luton Airport.	Ground Noise	Ongoing	Minutes of FLOPC meetings.	Residents within 65dB L_{den}	Increase the number of aircraft using single engine taxi procedures.	Ongoing
1.8	Work with our airline partners to promote and encourage the adoption of low power, low drag procedures such as delayed landing gear deployment in order reduce noise from arriving aircraft.	Arrival Noise	Ongoing	% of aircraft using low power, low drag procedures.	Residents within and beyond 55dB L_{den}	Increase the number of operators using low power, low drag procedures.	Ongoing
1.9	Working with our partners at Sustainable Aviation we will challenge current operational procedures to ensure continuous improvement to best practice.	Departure/Arrival Noise	Ongoing	Minutes of Sustainable Aviation meetings.	Residents within and beyond 55dB L_{den}	Annually review and improve the departures and arrivals code of practice.	Ongoing

2: Quieter aircraft

Ref:	Action	Impact	Timescale	Performance Indicator	Numbers Affected	Target	Progress to date
2.1	We will work with our Airline Partners to achieve the voluntary phase out of aircraft that are Chapter 3 or below, to encourage the introduction of quieter aircraft.	Departure/Arrival/ Ground Noise	2019-2023	% of Chapter 4 aircraft.	Residents within and beyond 55dB L_{den}	100% Chapter 3 aircraft by 2020 and 100% Chapter 4 aircraft by 2022.	Ongoing - 4 marginally compliant Chapter 3 aircraft operated in 2019.
2.2	We will review our landing charges annually to encourage the use of quieter aircraft at London Luton Airport.	Departure/Arrival/ Ground Noise	Annually	Publication of Charge's and Conditions of use.	Residents within and beyond 55dB L_{den}	Reduce the size of the noise contours.	Ongoing
2.3	Introduce incentives for airlines to adopt the quietest aircraft e.g. Airbus NEO and Boeing Max.	Departure/Arrival/ Ground Noise	2019	Publication of Charge's and Conditions of use.	Residents within and beyond 65dB L_{den}	Introduce new charges in 2019.	Complete - new charges implemented for 2020-2021.



3: Operational restrictions

Ref:	Action	Impact	Timescale	Performance Indicator	Numbers Affected	Target	Progress to date
3.1	We will operate within our agreed Total Annual Movement caps.	Night Noise	Ongoing	Movement reports in AMR and QMR.	Residents within and beyond 48dB L_{night}	A maximum of 9,650 movements between 23:00hrs-06:00hrs and a maximum of 7000 movements between 06:00hrs-07:00hrs for a rolling 12-month period.	Ongoing
3.2	We will continue to operate within our agreed Total Annual Quota Count (QC) caps.	Night Noise	Ongoing	QC reports in AMR and QMR.	Residents within and beyond 48dB L_{night}	3,500 QC points for a rolling 12-month period between (23:30hrs-06:00hrs).	Ongoing
3.3	To review and reduce the Total Annual Quota Count (QC) cap.	Night Noise	2020	Reduction of annual QC cap.	Residents within and beyond 48dB L_{night}	To review the Quota Count (QC) cap in 2020 to minimise night time noise disturbance.	Ongoing
3.4	We will operate within our agreed contour area limits.	Arrivals/Departure/ Ground Noise	Ongoing	Area of noise contours	Residents within 57dB $L_{aeq 16 hr}$ and within 48dB L_{night}	57dB(A) Leq16hr (0700-2300) - 19.4 sq km. 48dB(A) Leq8hr (2300- 0700) - 37.2 sq km.	Incomplete
3.5	Develop a noise contour reduction strategy to define methods to reduce the area of the noise contours.	Arrivals/Departure/ Ground Noise	2021	Evidence of work.	Residents within 57dB $L_{aeq 16 hr}$ and within 48dB L_{night}	Submit strategy to Local Planning Authority in 2021.	Complete - submitted to local planning authority in 2019.
3.5	In order to minimise ground noise we will monitor and enforce restrictions around the use of Aircraft Auxiliary Power Unit's (APU).	Ground Noise	Ongoing	Minutes of FLOPC meetings.	Residents within 65dB L_{den}	Ensure operators are aware of the APU procedures at Flight Operations Committee meetings.	Ongoing
3.6	In order to minimise ground noise, particularly at night, we will restrict the permitted hours for engine testing to daytime periods only.	Ground Noise	Ongoing	Log of engine testing.	Residents within 48dB L_{night}	Restrict engine testing for aircraft in the daytime period only.	Ongoing

4: Land-use Planning and Mitigation

Ref:	Action	Impact	Timescale	Performance Indicator	Numbers Affected	Target	Progress to date
4.1	We will install acoustic insulation in eligible properties as part of our residential and non-residential Noise Insulation schemes.	Ground/ Departure/ Arrival Noise	Ongoing	Noise Insulation Scheme update in QMR and AMR.	Residents within 63dB L _{day} or 55dB L _{night} or any property in which airborne noise level in excess of 90dB SEL occurs.	Continue to spend the full NIS budget annually.	Ongoing - full budget spent in 2019.
4.2	We will conduct an annual survey of those properties who have received noise insulation to measure the levels of satisfaction with the current Noise Insulation Scheme.	Ground/ Departure/ Arrival Noise	2019- 2023	Annual Survey Results.	N/A	Conduct annual survey of insulated properties by the following February. Report results of survey to Noise and Track Sub-Committee.	Ongoing
4.3	We will offer households exposed to levels of noise of 69dB L _{Aeq 16h} or more assistance with the cost of moving.	Ground/ Departure/ Arrival Noise	Ongoing	Evidence in AMR.	Residents within 69dB L _{Aeq}	Continue to offer assistance.	Ongoing - no properties within this contour.
4.4	We will work with community stakeholders to develop a plan to protect quiet areas as defined by UK government policy.	Ground/ Departure/ Arrival Noise	2020	Evidence of Plan.	Residents within and beyond 55dB L _{den}	Develop a plan by 2020 and ensure this is protecting quiet areas.	Ongoing
4.5	Through the Airspace Change Process we will ensure areas identified as 'quiet areas' are preserved as far as possible. 'Quiet Areas' will be defined and assessed as per government legislation.	Ground/ Departure/ Arrival Noise	Ongoing	Stages in CAP 1616 process.	Residents within and beyond 55dB L _{den}	Preserve quiet areas through Airspace Change Process as far as possible.	Ongoing
4.6	We will work with local authorities to raise awareness of the impacts of siting new developments that may be affected by aircraft noise.	Ground/ Departure/ Arrival Noise	Ongoing	Local Planning Group meeting minutes.	N/A	Increase awareness for local authorities through our Local Planning Group.	Ongoing

5: Working with the Local Community and Industry Partners

Ref:	Action	Impact	Timescale	Performance Indicator	Numbers Affected	Target	Progress to date
5.1	Carry out biennial surveys of local communities to seek feedback on our approach to noise management and our complaints service for continual improvement and to offer the ability for local communities to help shape the future of noise controls.	Community relationship	2019 / 2020	Results of Survey.	N/A	Carry out first survey in 2019 to define baseline and set improvements in 2020.	Incomplete - new target, to complete survey by end of 2020.
5.2	We will improve communications through regular updates to our website, noise blog, community newsletters (Inform) and reports.	Community relationship	Ongoing	Evidence of comms. on website.	N/A	Review website annually and publish newsletter bi-monthly.	Ongoing
5.3	We will positively respond to requests for meetings with airport representatives regarding aircraft noise, airspace modernisation and expansion plans*.	Community relationship	Ongoing	Minutes of meetings.	N/A	Engage proactively with any visitors to the airport, as well as visiting local residents.	Ongoing
5.4	We will regularly organise public drop in sessions in locations surrounding the airport for community members to visit and speak to airport employees about noise management.	Community relationship	Ongoing	Evidence in QMR and AMR.	N/A	Organise and attend at least 6 Public Surgery drop-in events each year.	Ongoing
5.5	We will log all enquiries and complaints relating to airport operations and publish complaint statistics in our QMR & AMR.	Community relationship	Ongoing	Evidence in QMR and AMR.	N/A	Regularly publish statistics in monitoring reports on quarterly and annual basis.	Ongoing
5.6	We will annually monitor the Noise Action Plan (NAP) actions with LLACC and where we recognise that further improvements can potentially be achieved; we will look to address it.	Community relationship	Ongoing	Evidence in AMR.	N/A	Publish NAP update in the AMR annually.	Ongoing
5.7	We will give the public access to our online noise and track monitoring system (TraVis) and work with the supplier to enhance future functionality.	Community relationship	Ongoing	Evidence of TraVis website.	N/A	Maintain and enhance functionality of TraVis system.	Ongoing
5.8	We will divert all money raised from noise and track violations penalty schemes into the Community Trust Fund (CTF).	Community relationship	Ongoing	Evidence in annual Community Strategy and AMR.	N/A	Annually publish the amount of money diverted to the CTF.	Ongoing

*expansion of the airport is currently being sought by the airport owners, more detail will be provided as and when it becomes available. Any increase in noise will be addressed through this application process.

Ref:	Action	Impact	Timescale	Performance Indicator	Numbers Affected	Target	Progress to date
5.9	We will produce and publish Quarterly Monitoring reports to inform Stakeholders of performance trends and noise management at London Luton Airport.	Community relationship	Ongoing	QMR published on website.	N/A	Publish reports on our website at earliest opportunity each quarter.	Ongoing
5.10	We will continue to present summer and annual noise contours within our Annual Monitoring Report.	Community relationship	Ongoing	Evidence in AMR.	N/A	Publish contour statistics in Annual Monitoring Reports.	Ongoing
5.11	We will continue to produce and publish an Annual Monitoring Report to inform stakeholders of performance trends and noise management at London Luton Airport.	Community relationship	Ongoing	AMR published on website.	N/A	Publish AMR on our website by 31st May each year.	Ongoing
5.12	We will engage proactively with LLACC and NTSC to identify initiatives which will help minimise noise in our local community.	Community relationship	Ongoing	Minutes of Meetings.	N/A	Meet with LLACC and NTSC every 3 months.	Ongoing
5.13	We will collaborate with our Flight Operations Committee (FLOPC) to determine new initiatives to reduce noise.	Community relationship	Ongoing	Minutes of FLOPC meetings.	N/A	Engage proactively with FLOPC at meetings held twice a year.	Ongoing

Employment

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. These figures were calculated from 2019 data produced prior to the COVID-19 lock-down period.

A list of businesses at London Luton Airport was matched with the Inter Departmental Business Register (IDBR). The IDBR dataset produced by the Office for National Statistics (ONS) is a comprehensive list of UK businesses that is used by the 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 analysis 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

A handful of companies which appeared on the list, but not the IDBR, had imputed estimates from analysis of the size of the enterprise and information from the airport.

Total employment in and around the airport

Employment was measured using main section headings from the Standard Industrial Classification 2007 (SIC 2007). 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	2,600
Financial and Insurance Activities	<100*
Manufacturing	800
Professional, Scientific and Technical Activities	<100*
Public Administration & Defence; Compulsory Social Security	300
Real Estate Activities	<100*
Transportation and Storage	5,500
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	700
Grand Total	11,200

* - 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 IDBR data. Standard Industrial Classification 2007 industrial sector codes have been used.

Due to confidentiality issues we are bound by ONS 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 11,200 employees in and around the Airport. This has increased by 800 since 2018, a rise of 8%. There are 9,500 full time and 1,700 part time employees.

Employment by working pattern

The IDBR provides employment figures by full and part time working patterns. The total number of full time employees was 9,500 which increased by 800 between 2018 and 2019, a growth of 9 per cent. The figure for part time employees was 1,700 which was the same as last year’s figure.

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	85%	15%
Luton UA	67%	33%

Source for Luton UA Figures: ONS Business Register & Employment Survey 2018, 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 a higher proportion of full time workers.

Time series

The following figures from 2012 to 2018 show the estimated employment levels in the vicinity of the Airport.



Source: AMR Employment Surveys 2012- 2019

There was an increase in employment between 2018 and 2019 around Luton Airport with approximately 11,200 employees working in the vicinity of the Airport in 2019. There has been employment growth related to the airport since 2016.

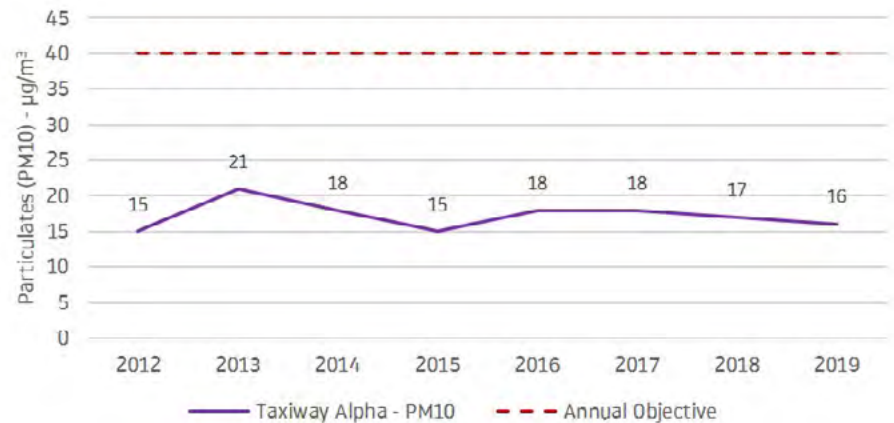
Air Quality

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 <http://www.airqualityengland.co.uk>. The parameters measured are PM10 and NO2.

PM₁₀ (Particulates measuring 10µm or less)

PM₁₀ is one of the main contributors to reduced ambient air quality. Particulate matter is made up of 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.

PM₁₀ 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 40µg/m³.



Nitrogen Dioxide (NO₂)

NO₂ in high concentrations can cause a wide variety of health and environmental impacts. The gas is produced from the combustion of fuels such as diesel and aviation fuel. NO₂ is currently measured using diffusion tubes, which are a simple air quality assessment tool that give an indication of longer-term average NO₂ concentrations.

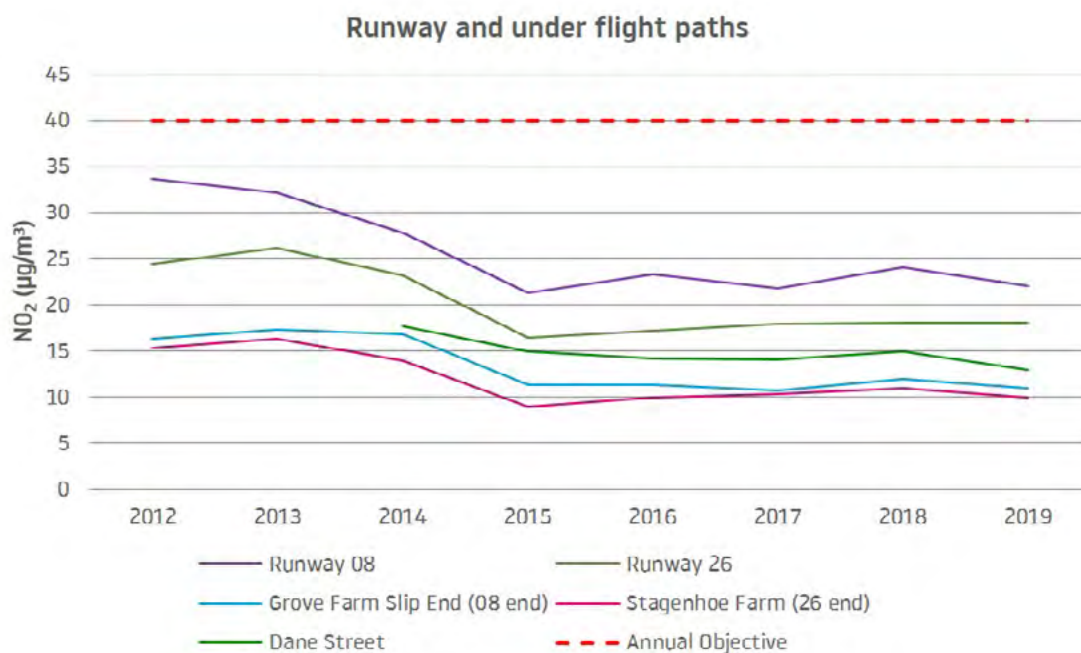
Diffusion tubes are used in 18 locations around LLA and the results provide a monthly average concentration of NO₂. To ensure accuracy of data, we also apply a bias-adjustment factor using national database factors.

- The long term (annual mean) local air quality objective for NO₂ is 40µg/m³.

In 2019, we also started a trial of a new monitor that monitors NO₂ concentrations continuously. The monitor is currently located in the drop-off zone (see results on next page).

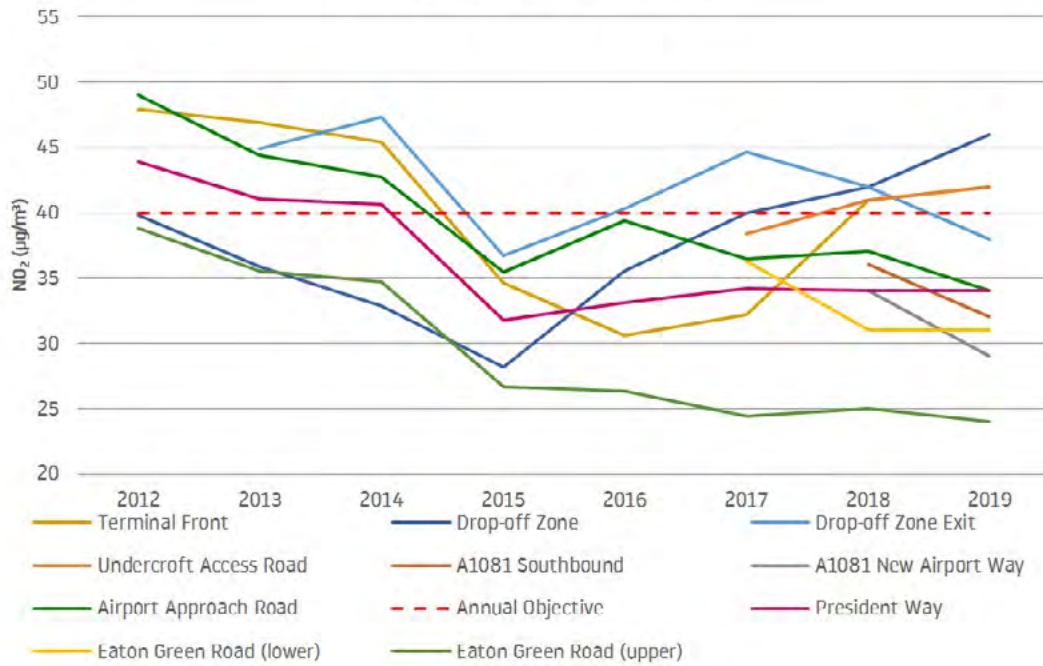
- The short term (1-hour mean) local air quality objective for NO₂ is 200µg/m³.

NO₂ levels at the closest residential receptors to the airport, and also along the aircraft flight paths have all seen a slight reduction compared to 2018 results and are significantly below the objective level laid out in the Air Quality (England) Regulations 2000 (as amended).



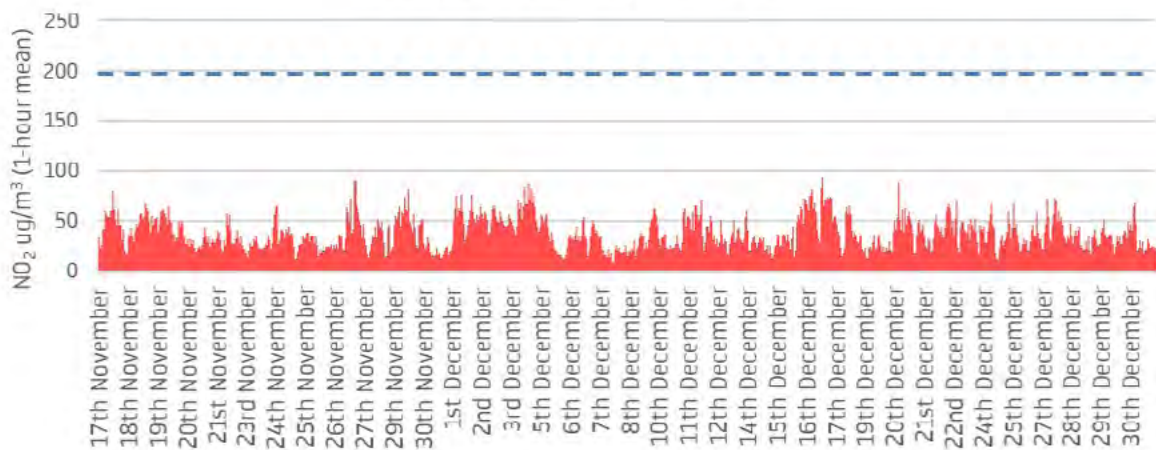
Levels monitored by the roads around the airport and in the car parks & bus bays are a little higher (graph on next page), with the locations at the drop-off zone, undercroft access road and the terminal front slightly exceeding the annual mean objective of 40 µg/m³ (that said, the objective is only strictly applicable in locations where public can be 24 hours a day such as residential locations).

Roads, car parks and bus bays



Towards the end of 2019, we opened a new drop-off zone which is located on the ground floor of the Terminal Car Park 2. To assess the air quality within the drop-off zone, we installed a new monitor that continuously measures NO₂ emissions. The results were assessed against the UK 1-hour mean objective of 200µg/m³ – the below charts demonstrates that there were no exceedances of the 1-hour mean objective for NO₂.

Drop-off Zone NO₂ Emissions



Surface Access

LLA aims to improve access to the terminal, particularly by public transport in order to reduce the contribution that journeys make to total airport-related CO2 emissions and also to air pollution. The previous Airport Surface Access Strategy (ASAS) expired in July 2017 and has since been replaced by the 2018–2022 ASAS, comprising a summary document and a fuller supporting technical report. The 2018-2022 ASAS was reissued in 2019, to provide an update on the projects and steps taken towards LLA’s sustainable travel targets. The objectives of the ASAS are to:

1. Promote and encourage sustainable surface transport options for employees and passengers;
2. Reduce the impact of surface access to the airport on the local community.

These targets are being monitored regularly, as part of the wider Local Transport Plan 3 (LTP) monitoring framework. The LTP was published in March 2011 and includes a long-term strategy for the period up to 2026. The LTP long-term vision involves providing an integrated, safe, accessible and more sustainable transport system which supports economic regeneration, prosperity and planned growth in the Luton conurbation. LLA’s Surface Access Targets fully support the LTP’s vision for an increased focus on the delivery of high quality, high capacity public transport.

Modes of Transport

LLA is well-placed in relation to many areas of the UK, and benefits from excellent accessibility by road and rail. It is located close to the M1 Motorway, linking London with the East Midlands and North East. It is also situated close to Luton Airport Parkway Railway Station, with local, regional and long-distance services calling at this station, including frequent direct services to Central London and the South-East. The bus and coach interchange at the airport provides extensive local, regional and long-distance journeys, with a range of operators providing services. Major changes are currently underway both at the airport and in the vicinity, to improve surface access modes. For example, work continues on the DART system, which will connect LLA with Luton Airport Parkway Railway Station in less than four minutes from circa Q3 of 2021.

Passenger mode share

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, LLA 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 2012-2019. The CAA statistics suggest that 38% of airport passengers chose to use the public transport methods of rail, bus or coach in 2019.

%	2012	2013	2014	2015	2016	2017	2018	2019
Drop Off	27	28	25	27	28	43	45	45
Car Park	23	23	28	27	23	20	17	16
Rail	17	16	14	16	16	17	17	21
Bus/Coach	16	16	15	15	16	16	16	17

Whilst the figures have remained fairly static for the last few years, LLA continues to work to promote the use of sustainable transport, examples of which are given below.

The Bus and Coach Station adjacent to the terminal has been significantly improved. Coach and bus services are now closer in proximity to the terminal than other transport options, to encourage growth in sustainable surface access modes. Sufficient bays are available to accommodate anticipated growth in bus and coach use. A new canopy was installed in Q1 2019, providing cover to passengers waiting for onward travel services within the Central Terminal Area, and further improvements to the canopy are expected in 2020. Enhancements to the bay signage has recently facilitated optimal operational use of the area, and to further this development, digital information totems will soon be installed at each of the 18 bays, providing frequency information and enhanced wayfinding.

In the realm of rail, Luton Council's airport company, London Luton Airport Ltd (LLAL), is building the DART, a state-of-the-art, £225m fast transit system that will link London Luton Airport with Luton Airport Parkway station in under four minutes. The aim of the project is to support a seamless journey from St Pancras to the UK's fifth biggest airport in just 30 minutes, and to achieve a reduction in the number of passengers travelling to and from the airport by private car. The DART is intended to be brought into operation in 2021.

LLA recognises that access via private car, and the use of car rental services, is required for passengers that need increased flexibility beyond the offering of public transport options. To reduce carbon emissions associated with these modes, electric charging points are in use across both staff and passenger car parks, alongside an "Electric Vehicle Tariff," allowing for 30 minutes access for a significantly reduced rate versus the standard access fee. LLA is committed to working closely with the on-site car hire suppliers to introduce environmentally friendly transport initiatives, such as hybrid or electric vehicles.

Staff mode share

LLA aims to reduce the proportion of staff travelling alone by car to and from London Luton Airport. Whilst employee travel does not generate as many trips as passengers, it remains an important consideration, due to the frequency of a commute. Staff travel surveys are undertaken once every 2 years, the results for which are presented below.

%	2010	2012	2014	2016	2018
Drive alone	66	66	62	68	59
Car share	12	8	11	7	8
Taxi	1	1	0	1	1
Motorcycle	1	1	1	1	1
Rail	5	5	10	7	8
Bus/Coach	7	9	8	9	16
Cycle	2	2	2	2	2
Walk	5	6	7	5	6

Staff Travel – Progress vs. Airport Surface Access Strategy

The Airports Surface Access Strategy (ASAS) also involves reducing Single Occupancy Vehicles (SOV) use and carbon emissions while enhancing the environment and improving the community's health and quality of life.

The strategy has a target to directly contribute to a reduction in SOV travel by employees to and from LLA. Employee single occupancy vehicle (SOV) travel has achieved the 2016 and 2019 targets, achieving 59.4% mode share in the latest 2019 Staff Travel Survey versus a target of 66%. This is seen in the table below.

	2016	2019	2022
Target	68%	66%	64%
Result	68%	59%	

More information on the Airport Surface Access Strategy can be found at: <https://www.london-luton.co.uk/corporate/lla-publications/surface-access-strategy>

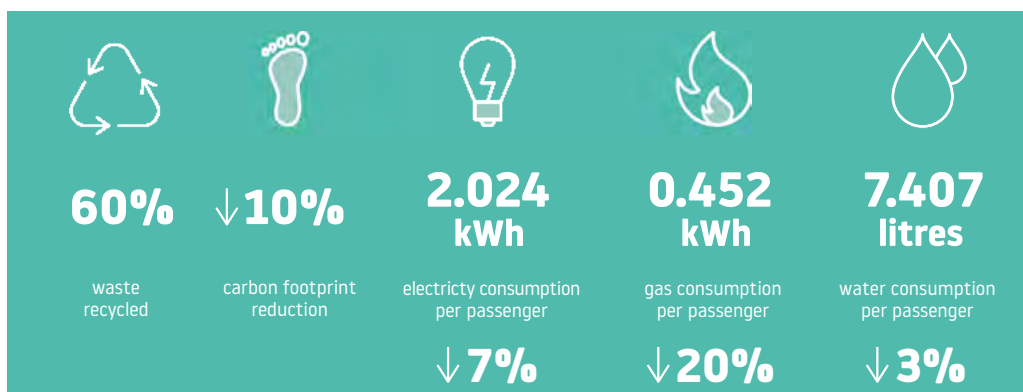


Sustainability

London Luton Airport is committed to operating in a way that maximises the socio-economic benefits for the local and regional area whilst minimising the environmental impacts. To ensure this vision is shared and supported, we work closely with airlines, stakeholders and business partners to promote this approach across the airport, ensuring that the full benefits that London Luton Airport can bring to the region are realised.

LLAOL aims to continuously improve on environmental performance in key areas across the airport.

Our key achievements in 2019 include:
Accreditation with Airport Carbon Accreditation Scheme
10% reduction in carbon footprint Equivalent to around 16 trips around the planet Earth in an average diesel car
Winner of Energy Awards 2019 (Energy Champion of the Year category)
60% of waste recycled
20% reduction in gas usage per passenger
7% reduction in electricity usage per passenger
3% reduction in water usage per passenger
Maintained the ISO14001 and ISO50001 international accreditation standards for Environmental and Energy Management Systems.



Waste Reduction and Recycling

We've continued to work closely with our teams, concessionaires and other 3rd parties to reduce waste at source and segregate recyclable waste such as glass, food, cardboard and mixed recycling. We've also continued to work with our waste provider to ensure waste operatives carry out additional waste sorting to increase the amount of waste that's recycled before it leaves the airport. Despite significant changes in the global recycling market, we achieved 60% recycling rate.

In 2019, we also introduced a new scheme whereby confiscated items collected from passengers at airport security, that would otherwise be disposed of as waste, are now donated to Luton Food Bank. So far, over 100,000 items have been donated in turn reducing our volumes of waste.



Energy and Carbon

Over the last year, we've focused on taking a 'deep dive' into our energy and fuel usage data to identify and understand significant opportunities where usage can be reduced through operational controls and our building management system. We've also improved the way we use the data by installing minimum / maximum tolerances, which allows for early identification and investigation of peaks in consumption.

As part of the upgrades to the main terminal building and the wider airport, we've gradually replaced lighting with LED equivalents as well as reduced the number of lights – throughout 2019, we've upgraded lighting in domestic and international arrivals as well as the central search and the onward travel centre.

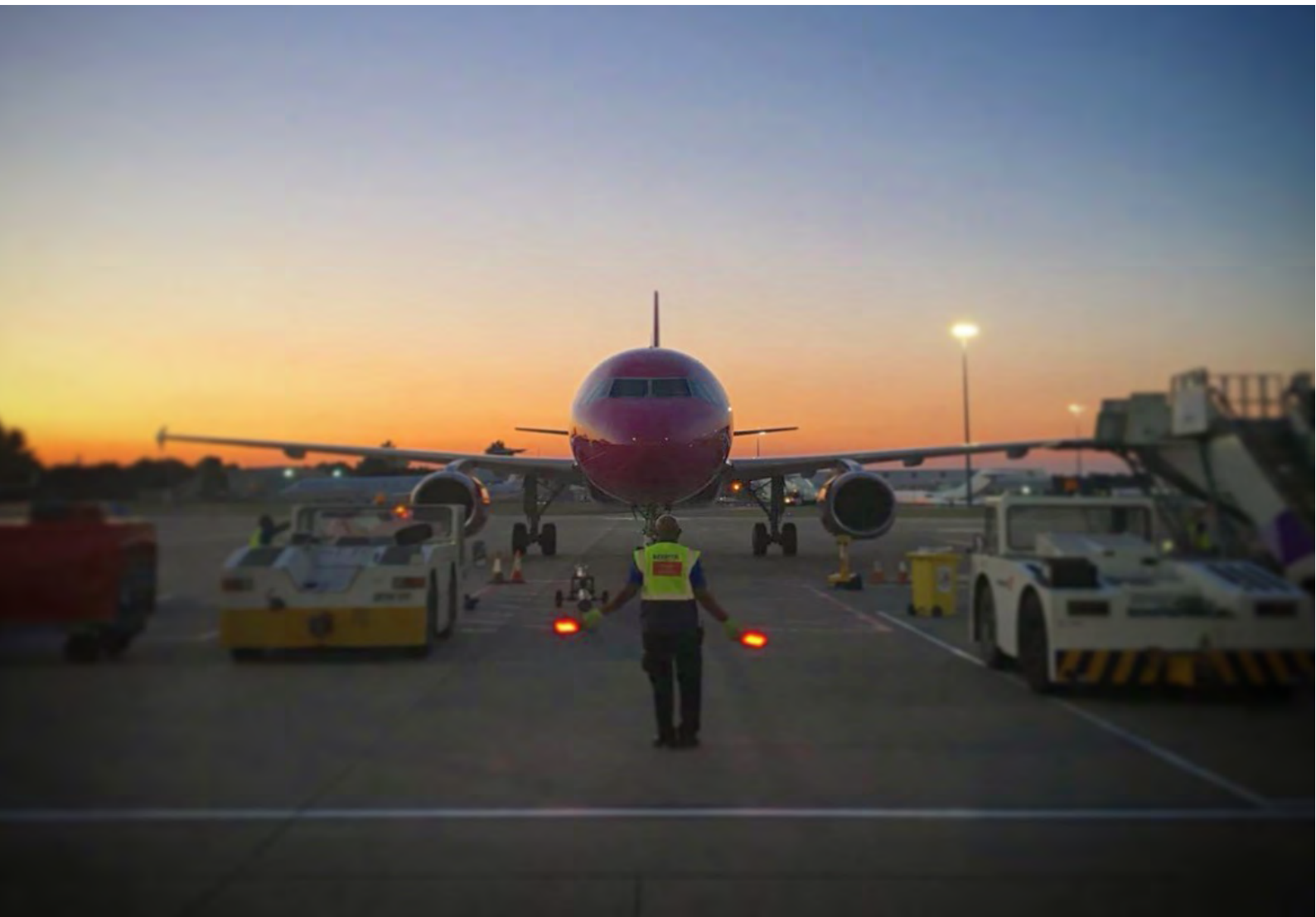
To reduce our gas consumption, we've started an airport wide boiler upgrades to more efficient boilers. This work started with upgrading Cargo and Fire Station boilers, which was completed in 2018. We continued this work in 2019 which saw upgrades to the four boilers heating our main terminal building. This resulted in notable gas consumption savings – compared to 2018, our gas consumption has reduced by over 16% in total which is equivalent to 0.45kWh per passenger.

Our continued focus to identify opportunities to reduce energy consumption have resulted in a saving of 1294 tonnes of CO₂e; this is a 10% reduction compared to 2018.

We've also achieved accreditation with the Airport Carbon Accreditation Scheme.

Water

As part of our continuous maintenance and upgrades to washroom facilities, we've ensured that all facilities have been installed with water efficient fixtures.



Planning and Development

Through its Local Plan, Luton Borough Council (the Council) sets out local planning policies and identifies how land is used, determining what will be built where. The Council also is responsible for the Local Transport Plan (LTP) providing policies, strategies and schemes primarily for Luton, though the LTP does refer to strategic transport and infrastructure and other cross boundary matters for the whole conurbation (Dunstable and the Houghton Regis area).

Local Plan

The Luton Local Plan (2011-2031) was adopted in November 2017. The adopted Local Plan is a strategic document setting out the vision, objectives and spatial planning strategy for the whole of Luton Borough Council's area for the period up to 2031.

It comprises the following document and accompanying plans:

- Luton Local Plan (2011-31), November 2017
- policies map
- town centre inset

These can be viewed by visiting the following page on the Council's website:

<https://www.luton.gov.uk/Environment/Planning/Regional%20and%20local%20planning/Pages/Local%20Plan%202011%20-%202031.aspx>

Policy LLP6 of the Local Plan covers the London Luton Airport strategic allocation, an area of 325 hectares, identified on the policies map, including land within the airport boundary, Century Park and Wigmore Valley Park.

Planning Applications

The permission to expand the airport to allow an increase to up to 18 million passengers per annum (mppa), granted in 2014 (Council reference 12/01400/FUL), has been fully implemented.

Work commenced on the construction of the Direct Air Rail Transit (Luton DART) system in April 2018, with the 'gateway' bridge over the A1081 being placed in position in December 2019 following its construction adjacent to the Airport Way roundabout at the entrance to the airport (ref: 18/01049/FUL). It is anticipated that the DART linking Luton Airport Parkway station and the airport terminal will be open in 2021.

In March 2019 the Development Control Committee resolved to grant planning permission for the New Century Park development (ref: 17/02300/EIA), with the Secretary of State confirming in July that the application was not to be called in, but rather the local planning authority could grant planning permission. The legal agreement associated with this proposal has yet to be signed.

Separately, in February 2019 the airport owner, London Luton Airport Limited (LLAL), put forward its preferred option for the expansion of the airport. This would be a Nationally Significant Infrastructure Project (NSIP) as defined by the Planning Act 2008, with the proposal requiring an application for a Development Consent Order and determination by the Secretary of State. In May 2019 the Planning Inspectorate (PINS) issued its scoping opinion following a scoping request from LLAL in March. In October 2019 LLAL began a consultation on its expansion proposals, producing a Preliminary Environmental Impact Report, and holding exhibitions in 34 separate locations. The consultation concluded on 16 December 2019, with the results of the consultation due to be published in 2020.

Hotel developments

The Luton hotel market is very much dominated by airport related demand, from passengers and crew, with the Luton Hotel Study (July 2015) indicating that demand was likely to continue to grow.

The following hotel developments have been granted planning permission, are being implemented, or are still under consideration, since the table in the 2016 AMR was produced –

Site address	Current status of application	Number of bedrooms
Bartlett Square	Planning permission for 172 bedroom hotel recommended for approval subject to the signing of a legal agreement in November 2018 (still pending in 2019)	172
Napier Gateway (part of the Napier Park site)	Mixed development including 209 bedroom hotel (still to be built)	209
Power Court (Town Centre)	Outline permission for football stadium and associated infrastructure granted planning permission September 2019 (yet to be implemented)	150
Land adjoining junction 10 to junction 10A of M1	Outline application for mixed use development including a hotel granted planning permission September 2019 (yet to be implemented)	350
Former Honda Garage, Cumberland Street (Town Centre)	Five to seven storey hotel (resubmission) granted planning permission in March 2018 (still to be implemented)	235
Phoenix House (Town Centre)	Change of use to hotel granted planning permission August 2017 (development still to be completed)	78
Prudence Place, Proctor Way	Demolition of existing buildings and erection of four storey hotel with undercroft parking granted permission in July 2018 (still to be implemented)	92
New Century Park	Planning permission for 145 bedroom hotel recommended for approval subject to the signing of a legal agreement in March 2019 (still pending in 2019)	145
15-23 Manchester Street (Town Centre)	Planning permission was granted for the change of use of the upper floors to 39 bedroom hotel in January 2019 (yet to be implemented)	39

National Aviation Policy

The Aviation Policy Framework (APF) published by the Coalition Government in March 2013 set out the Government's policy on aviation. The APF focuses on the benefits of aviation to the UK economy as well as its environmental impacts.

The 'Airports National Policy Statement: new runway capacity and infrastructure at airports in the south-east of England' (the Airports NPS) was designated on 26 June 2018. The Airports NPS provides the primary basis for decision making in relation to the Development Consent Order (DCO) for a new runway at Heathrow, whilst also being an important and relevant consideration in respect of applications for new runway capacity in London and the south east of England.

The Airports NPS sets out:

- The Government's policy on the need for new airport capacity in the South East of England;
- The Government's preferred location and scheme to deliver new capacity (the Heathrow Northwest Runway); and
- Particular considerations relevant to a development consent application to which the Airports NPS relates.

The Airports NPS includes policies that will be important and relevant for any nationally significant infrastructure project (NSIP) related to airports in the south east of England.

It should be noted that five applications for judicial review of the Airports NPS were dismissed by the High Court in May 2019 – though permission was granted to apply for a judicial review to the Court of Appeal (these were heard in October 2019 with further written submissions in November and judgement scheduled to be handed down in 2020).

Between December 2018 and April 2019 the Government sought feedback on its proposed new aviation strategy: 'Aviation 2050: The Future of UK Aviation'. The strategy is to focus on: balancing growth from passenger demand with action to reduce environmental and community impacts; improving the passenger experience; and building on the UK's success of establishing new routes and greater choice.

Local Transport Plan (LTP)

The current LTP is the third local transport plan produced by the Council in April 2011, which sets out how the Council will deal with transport matters in and around Luton. It comprises three parts, namely:

- A long term Transport Strategy up to 2026. With regard to the transport affecting the, airport this sets out anticipated passenger numbers of between 15.5mppa and 18mppa by 2026, together with an additional 3,000 employees;
- A series of Transport Policies, setting out how those will be implemented; and
- An Implementation Plan covering the five year period from the date of the LTP, which is reviewed annually. This includes a number of key elements that are relevant to the airport, such as: a focus on smarter choices and travel by more sustainable modes; implementation of a new entrance from the north to Luton Airport Parkway Station; and an extension of Airport Way to serve planned employment sites to the east of the airport.

The Luton DART was not specifically mentioned in the LTP, but it will serve to improve access from Luton Airport Parkway Station to the airport as well as encouraging a modal shift away from the use of private cars to public transport.

The LTP strategy also refers to the role of the Airport Surface Access Strategy (ASAS) in promoting sustainable travel to the airport for both passengers and employees, and the Council will work with



