

1. INTRODUCTION

This Noise Action Plan has been prepared in response to the Environmental Noise Directive (2002/49/EC) which requires all Member States within the European Union to produce Noise Maps and Action Plans for the main sources of environmental noise, including airports. London Luton Airport Operations Limited, as operator of London Luton Airport, is the competent authority for preparing this Noise Action Plan. This document is a summary of the main Noise Action Plan.

The Regulations require the preparation of Strategic Noise Maps, which were initially submitted to DEFRA in 2007, and revised in 2012 (based on aircraft movements in 2011). This Noise Action Plan has been developed having regard for the results of the 2012 noise mapping and in accordance with the Environmental Noise (England) Regulations 2006 (as amended) and associated guidance updated by DEFRA in July 2013.

Whilst the original Noise Action Plan (2010-2015) was subject to a comprehensive 16 week public consultation exercise, this reviewed version (2013-2018) remains

broadly in line with the original but has been revised to include updated noise mapping, progress on noise actions, as advised by DEFRA, with no requirement for extensive consultation. The London Luton Airport Consultative Committee (LLACC) have been involved in the development and consultation process throughout.

In 2011 (which is the assessment year for this Noise Action Plan), London Luton Airport handled 9.5 million passengers. In addition to passenger activity, the airport is also an important international centre for business aviation, cargo and aircraft maintenance. London Luton Airport's excellent connections to London and the national strategic transport network, plus a strong local catchment with a high propensity to travel 'low cost', has ensured that the airport is one of the fastest growing in the UK.

This Noise Action Plan process has provided an opportunity to consider our progress with respect to noise management, and to continue to voluntarily deliver improvements for the benefit of the local community. We have taken

the opportunity to further develop our voluntary noise management strategy with 55 actions identified to ensure noise impacts are managed, measured and communicated effectively.

These measures have been selected to address problems identified through this Noise Action Plan process, but recognise that noise causes concern to some people outside the noise contour areas we are required to consider in accordance with the Environmental Noise (England) Regulations 2006 (as amended).

Continued and enhanced consultation with the community is essential so that an appropriate balance can be struck between the socio-economic benefits of airport operations and its environmental impacts. This Noise Action Plan, once adopted by DEFRA, will provide a meaningful framework for London Luton Airport and the Consultative Committee to build upon our established voluntary approach to the proactive management of aircraft noise in and around the airport.





2. LEGISLATION AND POLICY

Aircraft noise is regulated by international, european and national legislation, as well as controlled at a local level.

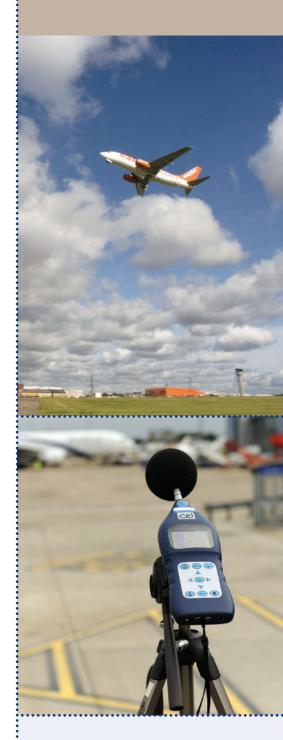
European Noise Directive 2002/49/EC (END) places a requirement on Member States to prepare Strategic Noise Maps and develop Noise Action Plans based on the noise mapping results. These requirements were transposed into UK law under the Environmental Noise (England) Regulations 2006 (as amended).

Strategic Noise Maps for London Luton
Airport have been produced and submitted
to the Department for Environment,
Food and Rural Affairs (DEFRA). Those
relating to 2006 activity were published
in March 2009, and those relevant to this
Noise Action Plan for 2011 activity were
published in December 2013 by DEFRA.
They are available at www.defra.gov.uk/
noisemapping

London Luton Airport operates under a planning consent granted in 1998, associated with the permission to build a new terminal building. Full details relating to Conditions 10, 11 and 12 of the planning consent are available on request. In September 2012, however, a revised Masterplan was published following public consultation, outlining the proposal to improve passenger facilities and enable the airport to accommodate 18 million passengers per annum by 2031.

A planning application was subsequently submitted and approved by LBC in June 2014. The planning permission contains a new suite of planning conditions and obligations, the provisions of which will provide further controls over the airport operations. Actions associated with these conditions have been added in Section 6.

London Luton Airport works closely with local planning authorities and the LLACC to ensure that careful consideration is given to noise management issues. London Luton Airport's noise management strategy includes a variety of policies and voluntary controls, developed and implemented with the support of the LLACC.





3. PUBLIC CONSULTATION

This Noise Action Plan has been developed with the support of the LLACC, NATS (our air traffic control provider) and airline partners.

During the drafting of the initial Noise Action Plan in 2009, London Luton Airport held a 16 week consultation exercise to seek the views of key stakeholders and the local community, from 28th September 2009 to 17th January 2010. During the consultation period representatives from London Luton Airport attended meetings with Planning and Environmental Health Officers from neighbouring local authorities and other key stakeholders and community groups on request. In addition London Luton Airport hosted two public exhibitions to give local residents the opportunity to ask questions about the Noise Action Plan and our approach to noise management.

According to guidance updated by DEFRA in July 2013, the airport involved LLACC members in a further four week consultation when the Noise Action Plan was updated to incorporate the results from noise mapping undertaken in 2012. This consultation ran from 25th June to 23rd July 2014.

A schedule of all those individuals and organisations that were notified of the consultation in 2014 can be found in the full Noise Action Plan document, along with a list of those that responded. Feedback received during the consultation is also summarised in the full document, along with a reasoned justification for the response to the issues raised.

Copies of the final Noise Action Plan (2013 -2018) will be sent to key stakeholders and those who participated in the consultation process once it has been formally adopted by DEFRA. It will also be published on the airport community website at www.london-lutoninthecommunity.co.uk/noise action-plan.

London Luton Airport, through its
Consultative Committee, remains
committed to public engagement and
communication with respect to noise
management. This consultative approach
will be sustained throughout the life of
this Noise Action Plan.



4. NOISE AND NOISE MAPPING

Strategic Noise Maps have been produced in terms of the five noise metrics (L_{den} , L_{Aeq} , 16_{hr} , L_{dayr} , $L_{evening}$ and L_{night}) as required by the Regulations.

Population and dwellings lying within contours

The estimated total number of people and dwellings exposed above various noise levels are shown in the tables opposite. Population and dwelling counts have been rounded as follows:

- The number of dwellings has been rounded to the nearest 50, except when the number of dwellings is greater than zero but less than 50, in which case the total has been shown as "< 50".
- The associated population has been rounded to the nearest 100, except when the associated population is greater than zero but less than 100, in which case the total has been shown as "< 100".

The noise mapping results indicate that no residential properties are located within the 69dB(A) L_{Aeq} contour area.

Non-Residential Noise Sensitive Buildings

The Regulations require airport operators to determine the number of noise sensitive buildings within the various contour bands, including housing, hospitals and schools. Table 7 summarises the estimated number of non-residential noise sensitive buildings and has been verified by Luton Borough Council, Hertfordshire County Council and Central Bedfordshire Council.

Table 1: Noise contour areas (km²)

Contour,	Area of Air Noise Contours (km2)				
dB (A)	L_{den}	L_{night}	L _{Aeq, 16h}	L _{day}	L _{evening}
48	-	26.6	-	-	-
51	-	15.3	-	-	-
54	-	8.7	23.3	25.2	17.6
55	33.2	-	-	-	-
57	-	5.0	13.3	14.3	9.9
60	12.8	2.4	7.9	8.5	5.8
63	-	1.3	4.5	4.9	3.0
65	5.2	-	-	-	-
66	-	0.8	2.1	2.4	1.5
69	-	-	1.2	1.3	0.9
70	1.6	-	-	-	-
75	0.7	-	-	-	-

Table 2: Estimated total number of people and dwellings above various noise levels, $L_{\it den}$

Noise Level, dB	Number of Dwellings	Number of People
≥ 55	6,450	14,300
≥ 60	1,800	4,700
≥ 65	350	1,000
≥ 70	0	0
≥ 75	0	0

Table 4: Estimated total number of people and dwellings above various noise levels, $L_{evening}$

Noise Level, dB	Number of Dwellings	Number of People
≥ 54	2,950	7,000
≥ 57	1,150	3,000
≥ 60	450	1,200
≥ 63	< 50	< 100
≥ 66	0	0
≥ 69	0	0

Table 6: Estimated total number of people and dwellings above various noise levels, L_{night}

Noise Level, dB	Number of Dwellings	Number of People
≥ 48	5,000	11,400
≥ 51	2,400	6,000
≥ 54	900	2,400
≥ 57	300	900
≥ 60	< 50	< 100
≥ 63	0	0
≥ 66	0	0

All of the above noise sensitive properties shown in Table 7 are schools, with no hospitals located within the various noise contour areas.

Table 3: Estimated total number of people and dwellings above various noise levels, $L_{\rm day}$

Noise Level, dB	Number of Dwellings	Number of People
≥ 54	5,050	11,300
≥ 57	2,550	6,200
≥ 60	950	2,500
≥ 63	300	800
≥ 66	< 50	< 100
≥ 69	0	0

Table 5: Estimated total number of people and dwellings above various noise levels, $L_{Aeq,16h}$

Noise Level, dB	Number of Dwellings	Number of People
≥ 54	4,550	10,300
≥ 57	2,150	5,400
≥ 60	800	2,100
≥ 63	150	400
≥ 66	< 50	< 100
≥ 69	0	0

Table 7: Estimated total number of non-residential noise sensitive buildings at various noise levels, $L_{{\it Aeq.16h}}$

Noise Level, dB	Number of Buildings
≥ 54	3
≥ 57	1
≥ 60	0
≥ 63	1
≥ 66	0
≥ 69	0

The results indicate that no non-residential noise sensitive buildings are located within the 69dB(A) $L_{\mbox{\tiny Aeq}}$ contour area.

5. IDENTIFICATION OF AIRCRAFT NOISE PROBLEMS

The 2009 consultation process identified a range of issues important to local residents. Many of the consultation responses came from people some distance outside the Strategic Noise Map contour areas we were required to consider in accordance with the Environmental Noise (England) Regulations 2006 (as amended). This has influenced our approach to noise management and the development of this Noise Action Plan.

It is clear that aircraft noise affects people in different ways and that the issues raised vary from one location to another. Having reviewed the consultation responses and the Strategic Noise Maps, London Luton Airport identifies the following as the noise problems that affect, or are important to the most people, without detracting from those issues raised by others during the consultation process.

These problems have also been identified by the LLACC in its consultation response.



Night Operations

Noise generated from night operations is recognised as being an issue of great concern for some local people.

Table 6 shows that 900 dwellings experienced noise levels of 54 dB or greater in 2011. However, representations received in the public consultation exercise illustrate that night noise is clearly also an issue for people outside of this contour area.

Noisier Aircraft

It is recognised that a small number of aircraft attract a disproportionate number of complaints. These relate primarily to the very small percentage of older generation jets in contrast to the vast majority of London Luton Airport movements, involving modern, quieter aircraft operated primarily by the low cost airlines.

Track-keeping

A range of views were presented by consultees on the issue of track-keeping. Some local people support the proposed use of tracks and P-RNAV technology, whilst others advocate a policy of dispersion of aircraft to spread the noise across a wider area. Many consultees also raised concerns about aircraft straying 'off track' in certain locations.

Arriving Aircraft

The routes flown by arriving aircraft, as well as the noise levels of arriving traffic, are identified as a problem to a number of local people.

Preservation of Quiet Areas

The Defra NAP guidance advises that airport operators will need to consider whether any elements of the proposed airport action plan might conflict with any existing quiet areas in agglomeration. At the time of publishing this action plan no quiet areas have been identified in nearby agglomerations.

Aircraft from London Luton Airport, Heathrow and Northolt, as well as other smaller airfields all however overfly the Chilterns Area of Outstanding Natural Beauty (AONB). Whilst the Chilterns is not classified as a quiet area under the terms of the END (as it is not in an agglomeration), consultees identified the need to preserve its tranquillity

Westerly Departures

Westerly departures see London Luton Airport traffic overfly areas of South Luton, as well as other built up areas such as Slip End, at relatively low levels. This issue in particular is seen as a priority for both London Luton Airport and the Consultative Committee.

Mitigation and Compensation

Mitigation and compensation for noise impacts was highlighted as a problem by the LLACC and other consultees. The DEFRA guidance also raises the issue of compensation, and requires airport operators to take account of the principles that are to be found in current legislation and guidance, including the Aviation Policy Framework, published in March 2013.

6. MANAGING AIRCRAFT NOISE

London Luton Airport has adopted a proactive voluntary approach to noise management, which seeks to minimise the effects of aircraft noise.

London Luton Airport is committed to:

- Monitor monitor noise effectively and report this to the LLACC and other interested parties in an agreed and recognised format.
- Manage develop and deliver policies, procedures and measures which will help to minimise the effects of aircraft noise and encourage improvements from airlines and other operators.
- 3) Listen and communicate we will engage, listen and respond to complaints and feedback in a timely manner. We will continue to improve our own methods of communication so that noise matters are clearly understood by those with an interest.
- Review and improve we will continue to review our approach with a view to delivering further improvement, where necessary.

This Noise Action Plan sets out how we intend to build on existing policies and procedures, with the intention of further improving noise management at the airport, taking into consideration ICAO's Balanced Approach.

The London Luton Airport Noise Action
Plan (shown overleaf) includes 55 measures
which over the next five years seek to
ensure that noise is managed, monitored
and communicated more effectively.

These measures will build on our established noise management programme, taking into consideration issues identified from the noise mapping process, but also including measures that will benefit people outside of the area identified in the Strategic Noise Maps.

To this end, London Luton Airport believes that our proactive and voluntary noise management strategy, in conjunction with this Noise Action Plan, is comprehensive and results in an acceptable level of aircraft noise, as defined in the Regulations and supporting guidance.

Each measure includes a timescale for implementation and identifies the problem(s) it has been designed to address. It is also proposed that key performance indicators and targets, where appropriate, are agreed with the NTSC.

The majority of actions overleaf were developed as part of the first version of the Noise Action Plan, with the support of a special LLACC Working Group, as well as pre-consultation advice from the NTSC, major based airlines, other operators and the air traffic control provider. The list has been further expanded to incorporate a new suite of planning conditions that have been set as part of planning permission to develop the airport.

London Luton Airport will work with the Consultative Committee to ensure it delivers against these commitments and that the Noise Action Plan remains effective





	Action	Noise problem *	Timescale			
	MONITOR					
1	Operate and maintain a noise and track-keeping system to monitor aircraft operations, reporting statistics quarterly to the LLACC (via NTSC)	A-F	Ongoing			
2	Produce L _{den} noise contours annually, based on an annual average 24 hour period and present to LLACC (via NTSC)	A-F	Ongoing			
3	Undertake regular analysis of aircraft activity and noise to identify where a review of procedures may help minimise disturbance	A-F	Ongoing			
4	Monitor % compliance of Continuous Descent Approaches (CDA) both day and night, reporting quarterly to LLACC (via NTSC)	A, C, D	Ongoing			
5	Undertake community visits with a portable handheld noise monitoring device, on request	A-F	Ongoing			
6	Present quarterly night contours to LLACC (via NTSC)	A-F	Ongoing			
7	Investigate, log and respond to all complaints relating to London Luton Airport aircraft activity, reporting in-depth statistics quarterly to the LLACC (via NTSC)	A-F	Ongoing			
8	Quarterly Airfield Environment Office Reports to be available to view on the London Luton Airport website as well as the LLACC website	N/A	Ongoing			
9	Monitor helicopter operations to/from London Luton Airport to ensure they avoid, where possible, the most densely populated areas	С	Ongoing			
10	Calibrate noise and track-keeping system and INM noise contour model on an annual basis	N/A	Ongoing			
11	Monitor the track-keeping compliance and follow up with operators, as necessary	С	Ongoing			
12	Monitor the number of marginally compliant Chapter 3 aircraft (approximately 10% of total movements during 2009)	В	Ongoing			
13	Monitor and report progress against Noise Action Plan actions to LLACC (via NTSC), providing statistics annually in the Annual Monitoring Report	A-G	Ongoing			
14	Review the voluntary Night Noise Policy in consultation with the LLACC (via NTSC)	A-D	2015			

^{*} Each noise action has been developed to address noise problems identified from the Strategic Noise Maps or issues raised during the public consultation exercise. (See Section 7)

- Night operations
- Noisier aircraft
- Track-keeping
- D Arriving aircraft
- E Preservation of quiet areas
- Westerly departures
- G Mitigation and compensation



	Action	Noise problem *	Timescale
	MANAGE		
15	Encourage daytime operations through higher landing fees at night	А, В	Ongoing
16	Fine any departing aircraft exceeding noise limits, to encourage airlines to operate the quietest aircraft types	А, В	Ongoing
17	Discourage residential development close to the airport boundary or areas affected by aircraft noise, in liaison with Local Authorities	A-F	Ongoing
18	Divert all noise violation limit penalties from airport operations to support the noise management programme and Community Trust Fund. Penalties will be reported to LLACC via NTSC on a quarterly basis.	A-G	Ongoing
19	Liaise regularly with airline operators via a 'Flight Ops' Committee to ensure adherence to existing standard procedures and encourage innovation	A-F	Ongoing
20	Review operational procedures in relation to noise with support of the 'Flight Ops' committee and NTSC	A-F	Ongoing
21	Work with operators to encourage the voluntary phase out of noisiest aircraft	A, B, D, E, F	Ongoing
22	Continue to review procedures for helicopter operations with the support of air traffic control	С	Ongoing
23	Work with operators on the voluntary phase out of marginally compliant Chapter 3 high aircraft i.e. hushkitted aircraft	A, B, D, E, F	2014
24	Explore with the 'Flight Ops' Committee/NTSC penalties for flying off track after the introduction of RNAV-1 departure routes	С	2014
25	Work with airlines, air traffic control, NATS and other stakeholders to introduce new technologies and environmental improvements	A-F	Ongoing
26	Review the Engine Ground Running policy to minimise disturbance during the night and late in the evening	A, E	Ongoing
27	Operate within planning limits	A-F	Ongoing
28	Actively participate and support the work of the industry and Airport Operators Association with respect to its 'Sustainable Aviation' programme	N/A	Ongoing
29	Liaise with London Heathrow and other airports with respect to non- London Luton overflying traffic, where necessary	C, D, E, F	Ongoing
30	Work with the LLACC (via NTSC), the 'Flight Ops' committee and NATS to identify airspace improvements which will improve the noise environment	A-F	Ongoing
31	Agree key performance indicators and targets for noise 'actions', where appropriate, with the LLACC (via NTSC)	A-G	Ongoing
32	Assess the impact of London Luton Airport traffic on the Chilterns AONB and explore potential for operational improvements	E	Ongoing

	Action	Noise problem *	Timescale			
	LISTEN AND COMMUNICATE					
33	Attend public meetings on request, where appropriate, to discuss the airport's operations	N/A	Ongoing			
34	Provide an information pack to first time complainants and those wishing to relocate into the area	N/A	Ongoing			
35	Formally engage with air traffic control and airline/other operators to help improve noise management/track keeping	N/A	Ongoing			
36	Host visits from local residents and MPs to discuss community concerns and to demonstrate the Noise and Track-Keeping system	N/A	Ongoing			
37	Prepare an Annual Monitoring Report, in conjunction with Luton Borough Council, incorporating detailed statistics on all aspects of the airport's operations including passenger throughput.	N/A	Ongoing			
38	Provide information in the Annual Monitoring Report on progress made on actions set out in the Noise Action Plan	N/A	Ongoing			
39	Establish a committee with Environmental Health Officers of Local Authorities (Herts, Beds and Bucks) to discuss the impact of the airport's operations and the Noise Action Plan	N/A	Ongoing			
40	Continue to offer email, telephone and website as options for complaints and enquiries	N/A	Ongoing			
41	Invite members of the public to visit the Environment Office to review noise and track information	N/A	Ongoing			
42	Engage effectively and proactively with the LLACC and NTSC	N/A	Ongoing			
43	Engage with local planning authorities to ensure they are informed about noise matters	N/A	Ongoing			
44	Review communication material, the noise information pack and the London Luton Airport website with respect to noise/noise management	N/A	2015			
45	Hold community surgeries to give local people an opportunity to discuss issues in person with representatives from the Community Relations and Environment Department	N/A	2014			
46	Improve communication with transient and non-based operators/users to ensure environmental and operational procedures are understood and adhered to	N/A	Ongoing			

As part of our planning permission granted in June 2014, the airport will further manage aircraft noise in a pro-active way by introducing the following new noise mitigation initiatives. The timescale for delivery of these initiatives is subject to the development proceeding as planned. Once the full Noise Control Scheme has been approved by Luton Borough Council, details will be made available on London Luton Airport's website.

	Action	Noise problem *	Times- cale
47	Develop and implement a Noise Control Scheme to control the noise of aircraft both during the day (0700 - 2300) and night periods (2300-0700), including a Noise Quota System for the night period (2330 -0600) to include: • Sanctions in relation to operators of aircraft which land or take off in breach of the QC System • Exclusion of aircraft movements with a QC value in excess of QC2 during the night time (2300-0700) • Details of the procedures to be adopted and measures with the purpose of phasing out night time (2300 to 0700) operations by aircraft with a QC value greater than 1 on either departure or arrival. For the Night Quota Period (2330 - 0600) this shall have the following limits incorporated into the scheme: • 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 which, using all reasonable endeavours, shall be reduced at each review until it reaches a point where it does not exceed 2,800 by 2028. For the Early Morning Shoulder Period (06.00 - 07.00) this shall have the following limit incorporated into the schemes: • Total annual movements by aircraft in any 12 month period shall be limited to 7000. Review the Noise Control Scheme no later than the first and fourth year after introduction, and every subsequent five years.	A, B	2014
48	Report actual and forecasted aircraft movements for the preceding and next twelve months every three months to Luton Borough Council.	A-F	2014
49	Implement a progressive reduction in the daytime maximum noise violation limit (NVL) in line with the requirements of the planning conditions (See Section 5)	В	2014
50	Develop a strategy to be submitted to Luton Borough Council for their approval which defines the methods to be used by London Luton Airport Operations Ltd (LLAOL) or any successor or airport operator to reduce the area of the noise contours by 2028 for daytime noise to 15.2km2 for the area exposed to >57dB Leq16hr (0700-2300) and above and for night time noise to 31.6 km2 for the area exposed to >48dB Leq8hr (2300-0700) and above.	A-F	2018
51	Report forecasted aircraft movements and consequential noise contours (Day, Night and Quota Period) for the forthcoming calendar year annually, which shall utilise the standard 92 day summer contour. Where the area enclosed by the 57-72dB(A) Leq16hr (0700-2300) contour could exceed 19.4 sq km for daytime noise, or the area enclosed by the 48-72dB(A) Leq8hr (2300-0700) contours could exceed 37.2 sq km for night-time noise, an action plan will be put in place to ensure this level isn't breached.	A-F	2014
52	Develop a Noise Control Monitoring Scheme and submit to Luton Borough Council for approval, to include: • Details of the fixed noise monitoring terminals and track keeping system (vertical and horizontal) • Details of the complaints handling system • Sanctions to be imposed on infringements by aircraft in respect of noise limits and track keeping • Arrangements for the verification of the submitted information Review the Noise Control Monitoring Scheme no later than the first and forth year after introduction, and every subsequent five years.	A-F	2014
53	Develop a Ground Noise Scheme and submit to Luton Borough Council for approval, to include: • Measures to limit the ground running of aircraft propulsion engines between 2300-0700 • Preferential use of stands and taxiways between 2300-0700 • Steps to limit the use of auxiliary power units (including the provision of fixed electrical ground power to stands and or suitably quietened ground power units) • No ground running of aeroplane engines for testing or maintenance purposes between 2300-0700, and designated areas for such testing between 0700-2300. Review the Ground Noise Scheme no later than the first and forth year after introduction, and every subsequent five years.	A	2014
54	Develop a Noise Insulation Scheme for residential as well as non-residential buildings.	F	2014
55	Reduce the night time noise violation limit to 80 dB(A) by April 2015	A, B	2015

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For more information visit www.londonlutoninthecommunity.com or email us at noise@ltn.aero

