

# LONDON SOUTHEND AIRPORT – PROPOSED CONTROL MEASURES

## NOTE

This document contains a set of control measures which Southend Airport will agree to in the context of a runway extension at the airport. It should be noted that this is not a complete set of controls. Further controls will need to be negotiated as a standard part of the town and country planning process, should a planning application be received, including the diversion of Eastwoodbury Lane, operating hours, passenger, flight, noise and other limits and other operational controls. The precise mechanisms for monitoring and enforcement of issues such as noise and air quality would be specified as part of any relevant planning permission.

CURRENT	PROPOSED
<p><b>1. NIGHT TIME AIRCRAFT MOVEMENTS</b></p> <p>a. There are restrictions on night flying, but they are outdated and theoretical night movements are over 900 per month, with no prohibition on passenger flights.</p>	<p><b>1. NIGHT TIME AIRCRAFT MOVEMENTS</b></p> <p>a. Only 120 Aircraft Movements (“the Monthly Quota”) shall be permitted during Night Time Hours (2300-0630hrs local time) in any one calendar month, subject to compliance with the provisions set out in (b) – (d) below.</p> <p>b. No aircraft with a noise level exceeding QC1 shall take off or land during Night Time Hours unless they are emergency flights, military flights, Government business flights, police flights or flights of QC exempt aircraft (none of such flights shall be included in the Monthly Quota).</p> <p>c. No helicopters shall take off or land during Night Time Hours, unless they are emergency flights, military flights, Government business flights or police flights (none of these flights shall be included in the Monthly Quota).</p> <p>d. No passenger flights may be scheduled to arrive or depart during Night Time Hours, <u>except</u> that up to a maximum of 90 passenger flights in any one calendar month may be scheduled to arrive between 23:00 and 23:30 local time, such flights to be included in the Monthly Quota.</p> <p><b>Note:</b> For the avoidance of doubt any passenger flights actually arriving or departing during Night Time Hours shall be included in the Monthly Quota. An Aircraft Movement is defined as an aircraft (whether fixed wing or rotary) taking-off or landing at an airport. For the avoidance of doubt, one arrival and one departure are counted as two movements.</p>

CURRENT	PROPOSED
<p><b>2. AIRCRAFT, PASSENGER &amp; CARGO LEVELS</b></p> <p>a. No cap currently, other than operational capacity of terminal facilities.</p> <p>b. No control over the level of freight.</p>	<p><b>2. AIRCRAFT, PASSENGER &amp; CARGO LEVELS</b></p> <p>a. There will be an annual cap on total aircraft movements at 53,300, although no cap on passenger numbers, as the impact of passenger growth will be tackled through the Surface Transport &amp; Parking provisions.</p> <p>b. The cap in (a.) does not include emergency flights, military flights, Government business flights or police flights.</p> <p>c. The total number of dedicated cargo aircraft movements to be limited to 5,330 per annum or 10% of the total number of aircraft movements, whichever is the lesser.</p>
<p><b>3. ENGINE TESTING</b></p> <p>a. It is believed that the current controls are for jet engines allowed until 2100hrs and propeller engine testing until 2200hrs, 7 days a week.</p>	<p><b>3. ENGINE TESTING</b></p> <p>a. Engine testing allowed only 0800-2000hrs, Monday to Saturday and 0900-1800hrs on Sundays.</p>
<p><b>4. SURFACE TRANSPORT &amp; PARKING</b></p> <p>a. No requirement to provide anything further at present.</p>	<p><b>4. SURFACE TRANSPORT &amp; PARKING</b></p> <p>a. The airport must provide a railway station, at their expense, to be operational in advance of the runway extension being used.</p> <p>b. An airport surface access strategy shall be agreed prior to the opening of the extended runway. Within 6 months of the airport meeting 1 million passengers per annum, a revised strategy shall be submitted for agreement with the appropriate Local Planning Authority. This will be further revised as growth reaches 1.5 million passengers per annum and at each subsequent additional 500,000 passengers per annum.</p> <p>c. The surface access strategy will include a green travel planning element, which will be required to link aircraft movements, passenger numbers &amp; car parking provision with any further contributions required because of adverse impacts via a S.106 agreement.</p>

CURRENT	PROPOSED
<p><b>5. NOISE LIMITS &amp; ROUTES TO/FROM THE AIRPORT TO MINIMISE NOISE IMPACT &amp; AIRCRAFT HEIGHT</b></p> <p>a. No controls currently.</p>	<p><b>5. NOISE LIMITS &amp; ROUTES TO/FROM THE AIRPORT TO MINIMISE NOISE IMPACT &amp; AIRCRAFT HEIGHT</b></p> <p>a. No aircraft with a noise level exceeding QC2 shall take off or land at any time, unless they are emergency flights, military flights, government business flights, police flights or maintenance flights. Aircraft using the airport for maintenance, will be limited to QC4, and may land or take off during the Day Time (0630-2300hrs) only and the total QC4 aircraft movements will be limited to 60 per annum.</p> <p>b. On take off, aircraft weighing over 5.7 tonnes Maximum Take Off Weight (MTOW), will be required to maintain a runway heading and climb to at least 1,500 feet before they may turn at 2.5m Distance Measuring Equipment (DME) when taking off to the SW (runway 24 departure) or at 1.0m DME when taking off to the NE (runway 06 departure). Other than to maintain safety or in exceptional circumstances, this procedure shall be followed in all cases.</p> <p>c. At night (2300-0630hrs local time) the airport will introduce a runway preference arrangement for aircraft to operate to and from the North East. This is known as a Noise Preferential Route (NPR). Where wind conditions allow and it is safe to do so, aircraft will land from the North East (on runway 24) and take off to the North East (on runway 06). This will ensure that flying activity will minimise any nuisance to densely populated areas during night hours.</p> <p>d. During the Day Time (0630-2300hrs) the airport will operate a runway preference arrangement, where aircraft will land from the North East (on runway 24) and take off to the North East (on runway 06), where movement volumes allow. In addition fewer than 50% of all Day Time landings will be from the South West and less than 50% of all aircraft movements will be over the South West. This will reduce the impact of aircraft movements over the densely populated areas of Leigh-on-Sea and Eastwood.</p> <p>e. The level of aircraft movements will be based on a 12 month rolling monitoring period to allow for adverse weather conditions. This will ensure that flying activity will minimise any nuisance to densely populated areas during Day Time hours.</p> <p>f. The airport will operate a system of noise and track keeping with fines being levied on operators who fail to comply with the agreed procedures. Any fines collected will be placed in a community chest and be used for selected improvements to the environment.</p>

CURRENT	PROPOSED
<p><b>6. NOISE COMPENSATION &amp; PURCHASE SCHEMES</b></p> <p>a. No direct controls currently.</p>	<p><b>6. NOISE COMPENSATION &amp; PURCHASE SCHEMES</b></p> <p>a. Within 1 year of the bringing into use of the extended runway the airport shall introduce:</p> <ul style="list-style-type: none"> <li>i. a Property Purchase Scheme - providing for the offering to purchase of properties affected by both high levels of noise (69 LeqdB(A) over the period 0700-2300hrs or more) and an increase in noise equating to 3 LeqdB(A) or more; and</li> <li>ii. a Noise Insulation Grant Scheme - offering to pay 100% of the cost of installing secondary double glazing or 50% of the cost of installing primary double glazing to any residential property which suffers from both a medium to high level of noise (63 LeqdB(A) over the period 0700-2300hrs or more) and an increase in noise equating to 3 LeqdB(A) or more.</li> </ul> <p>b. For the purpose of these schemes the standard mode long term average noise contour for the first full 92 day summer period in which the extended runway is in operation shall be taken as the base year from which to apply these measures.</p>
<p><b>7. AIR QUALITY</b></p> <p>a. No direct controls currently.</p>	<p><b>7. AIR QUALITY</b></p> <p>a. An air quality monitoring system will be implemented, together with periodic measurement, an Air Quality Management Plan and the regular publishing of air quality data.</p> <p>b. Emissions from surface transport will be tackled through the implementation of a green travel plan.</p> <p>c. Rolling five year review using the year that the runway extension becomes operational as the base year.</p> <p>d. Should the increased operations lead to breaches of statutory standards then the councils will be required to consider introducing an Air Quality Management Area, notwithstanding any lease or S.106 provisions.</p>
<p><b>8. INSTRUMENT LANDING SYSTEM</b></p> <p>a. There is only one at the moment for landings from the north east.</p>	<p><b>8. INSTRUMENT LANDING SYSTEM</b></p> <p>a. The Lease will specify the provision of a second instrument landing system in tandem with the operation of any runway extension, which will cater for approaches from the south west.</p>

<b>GLOSSARY</b>	
Aircraft movement	<b>Aircraft Movement</b> – An aircraft take-off or landing at an airport. For airport traffic purposes, one arrival and one departure are counted as two movements.
DME	<b>Distance measuring equipment</b> – This is a transponder-based radio navigation technology that measures distance by timing the propagation delay of VHF or UHF radio signals.
EPNdB	<b>Effective Perceived Noise in decibels</b> – The metric 'EPNL' (Effective Perceived Noise Level) is used for noise certification and it is measured in Effective Perceived Noise Decibels (EPNdB). Decibels are logarithmic units and a 3dB difference in noise level corresponds to a two-fold difference in noise energy.
ILS	<b>Instrument Landing System</b> – Is a ground-based instrument approach system that provides precision guidance to an aircraft approaching and landing on a runway, using a combination of radio signals and, in many cases, high-intensity lighting arrays to enable a safe landing during instrument meteorological conditions (IMC), such as low ceilings or reduced visibility due to fog, rain, or blowing snow. Instrument Approach Procedure charts are published for each ILS approach, providing pilots with the needed information to fly an ILS approach during instrument flight rules (IFR) operations, including the radio frequencies used by the ILS components or nav aids and the minimum visibility requirements prescribed for the specific approach.
LeqdB(A)	<b>Equivalent Noise Level with A-Weighting in decibels</b> – This is the measurement that represents the continuous noise level equivalent, as measured in decibels. The A refers to A-weighting, which is the most commonly used of a family of curves defined in the International standard IEC 61672:2003 and various national standards relating to the measurement of sound pressure level, as opposed to actual sound pressure. It is advised that this is measured over the period 0700-2300hrs. <i>Planning Policy Guidance Note 24: Planning and Noise</i> states that this is the measurement and period which should be used with regards to airports.
MTOW	<b>Maximum Takeoff Weight</b> – This is the maximum weight of the aircraft at which the pilot of the aircraft is allowed to attempt to take off, due to structural or other limits. MTOW is the heaviest weight at which the aircraft has been shown to meet all the airworthiness requirements applicable to it. MTOW of an aircraft is fixed, and does not vary with altitude or air temperature or the length of the runway to be used for takeoff or landing.
NPR	<b>Noise Preferential Routes</b> – Using defined, or 'noise preferential' routes (NPR's) are one way of minimising exposure to noise for people living near airports. Such routes are chosen because they direct aircraft, where possible, over less densely populated areas, such as heath and farmland.

**GLOSSARY (cont.)**

QC	<p><b>Quota Count</b> – In 1993 a new system was introduced based on aircraft noise certification data. Each aircraft type is classified and awarded a quota count (QC) value depending on the amount of noise it generated under controlled certification conditions. The quieter the aircraft the smaller the QC value. Aircraft are classified separately for landing and take-off. Aircraft were originally divided into six QC bands from 0.5 to 16, but following a review by the Department for Transport a seventh category - Quota Count 0.25 - was added in March 2007.</p> <p>The quota count doubles with each increase of 3 dB which corresponds to an approximate doubling of noise power. So the QC bands increase by multiples of two in step with the 3dB doubling of noise energy principle. However, due to the logarithmic nature of human aural perception, this 3dB change is only perceived as a small change in the noise level.</p>
Runway 06	At London Southend Airport this is the runway used for aircraft approaching from the South West and taking off to the North East.
Runway 24	At London Southend Airport this is the runway used for aircraft approaching from the North East and taking off to the South West.