DEPARTURES

All jet aircraft and most propeller-driven aircraft departing from London Stansted Airport follow initial flight paths, known as Noise Preferential Routes (NPRs).

The NPRs at London Stansted were set by the Department for Transport in 1989. The routes were designed so that aircraft avoided flying over the larger populated areas until they had reached a minimum height. As an airport operator, London Stansted has no authority to change these routes.

As aircraft cannot fly in the same way that a train runs on tracks, this means that there will be some variation as to where different aircraft will be on the NPR. This is because all aircraft perform differently and may be affected by weather conditions which can cause them to drift to the left or right. It is for these reasons that each NPR has a ‘swathe’ measuring 1.5 kilometres either side of the route’s centreline, resulting in a virtual corridor 3 kilometres wide.

As long as the aircraft fly within this 3km corridor they are considered to be on-track.

THE NPRS

At London Stansted there are six noise preferential routes - three at each end of the runway.

Air Traffic Control (ATC) are responsible for the routing of aircraft once they are airborne and they make sure that aircraft stay on these routes until they reach a height of 4000ft above sea level on four of these routes, and 3000ft above sea level on the other two during the day (this also changes to 4000ft above sea level during the night period).

Once aircraft have climbed to the correct height, ATC can instruct the pilots to leave the NPR and fly a more direct heading towards their destination - this is known as ‘vectoring’.

Additionally, ATC may direct aircraft off the NPR at a lower height if this is required for safe separation from other aircraft or for other safety issues such as weather avoidance. Therefore, just because an aircraft does not appear to be following the NPR, it does not necessarily mean it is doing anything wrong.

As NPRs are used to provide set routes for aircraft to follow, it provides a degree of certainty as to which areas will be over flown by departing aircraft. Track keeping is taken very seriously at London Stansted and is closely monitored by our dedicated noise and track keeping system in the airport’s Flight Evaluation Unit.

TAKING OFF AND THE IMPORTANCE OF WIND DIRECTION

A basic aspect of aviation safety is that aircraft need to land and take off into the wind. They can take off in the same direction as the wind, but only if it is very gentle (i.e. little more than a breeze).

Most of the time at London Stansted, the wind comes from the south-west. The wind direction can vary from year to year and month to month. In fact, the length of time that the runway operates in one direction can change from just a few hours to a few months - it all depends on the weather.

The direction of the wind is assessed at the airport at ground level and at 1000ft and 2000ft by ATC, they also receive reports from air crew. It is important to note that the wind speed recorded at ground level at the airport can vary considerably to levels recorded at a higher altitude or even to that in other local areas.
LOCAL PROCEDURES
There are a few local procedures at London Stansted that aircraft must follow.
Aircraft must avoid flying over the centre of Bishops Stortford. They should also avoid flying over Sawbridgeworth and Stansted Mountfitchet at a height below 2,500ft above sea level. The only reason for not following these local procedures would be for reasons of safety and would include weather avoidance.
Lastly, aircraft must be higher than 4000ft above sea level before they can fly over St. Elizabeth’s Centre located at Much Hadham.

WHAT IS DONE ABOUT TAKE-OFF NOISE?
People hear and react to noise differently. What can really annoy one person might not bother another. For the same person the noise can also seem different, depending on the level of background noise, such as traffic or the sounds of everyday life.
The same noise can sound different due to the weather. For example, wind, high humidity, cloud and rain can also distort sound. This is why the same plane, flying in the same direction, at the same height, at the same time of day, can sound very different to someone from one day to another.

NOISE MONITORING OF DEPARTING AIRCRAFT AT LONDON STANSTED
Noise at Stansted is regulated by the Government’s Department for Transport (DfT). The DfT have set maximum noise infringement levels for departing aircraft from London Stansted.
Different maximum levels have been set for day and night, as many people are not bothered at all by the aircraft noise during the daytime, this is usually because they are at work or see it as part of everyday life. But they can be bothered by the same noise levels at night. The Government’s night time rules apply from 23:30hrs until 06:00hrs. There is also a ‘shoulder period’ at either end of the night, with slightly less strict rules.
The limits set by the Department for Transport apply at 6.5km from the point on a runway where an aircraft start to move in order to take off (known as ‘start of roll’). These limits are:

<table>
<thead>
<tr>
<th>WHEN</th>
<th>TIMES</th>
<th>NOISE LIMIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day</td>
<td>07:00hrs – 23:00hrs</td>
<td>94 decibels</td>
</tr>
<tr>
<td>Day shoulder period</td>
<td>06:00hrs – 07:00hrs</td>
<td>89 decibels</td>
</tr>
<tr>
<td>Night shoulder period</td>
<td>23:00hrs – 23:30hrs</td>
<td>89 decibels</td>
</tr>
<tr>
<td>Night</td>
<td>23:30hrs – 06:00hrs</td>
<td>87 decibels</td>
</tr>
</tbody>
</table>

Here at London Stansted there are eight fixed noise monitors - four placed at each end of the runway. As the aircraft fly over these during take off, the aircraft are at full power and the noise levels are recorded.

FINING AIRLINES
The noise recordings are automatically recorded by the Noise and Track Keeping System in the Flight Evaluation Unit at London Stansted. If the level exceeds the limit set by the Government, the Airline concerned incurs a financial penalty, regardless of whether or not we receive a complaint about that departure.
All money collected from these infringements is distributed to the local community, environmental and schools projects through the airport’s Community Trust Fund.

FURTHER INFORMATION
If you would like further information, please contact the airport:

- Website: Make an enquiry, view an aircraft track or log a noise complaint:
  www.stanstedairport.com/noise
- By e-mail: stanstednoiseline@stanstedairport.com
- By telephone: 0800 243 788 (answerphone service only)
- By post: Flight Evaluation Unit
  Enterprise House
  London Stansted Airport
  Stansted
  Essex CM24 1QW