Manchester Airport Departure Routes Information Pack

**How We Operate**

**MEASURING NOISE**

- "Noise contours" give an indication of general noise levels and show an average noise reading over a set period of time. They use actual information on the position, number, heights and noise levels of arrivals and departures to and from Manchester. Noise contours look like a series of concentric rings, like in a tree trunk. The closer the rings are to the airport, the louder the noise is. This is known as 'westerly operations'.

- Sometimes the wind direction changes and moves to the east. In this case, aircraft approach from the West (over Stockport and Heald Green) and take off to the East. In 2015, 81% of departures were westerly operations.

- The wind direction may change several times in a day, so there is no typical wind direction over the last six years.

- The wind usually blows from Manchester Airport has two runways. We use both runways during the daytime, but planning permission does not allow us to use Runway 2 between 10pm and 6am, unless it is closed for maintenance.

**Want to Know More?**

- For more information, you can visit the Manchester Airport website [manchesterairport.co.uk](http://manchesterairport.co.uk).

- You can also download an Information Pack which includes detailed information about the number of aircraft and passengers currently flying from Manchester Airport.

- If you would like to talk to us, you can:
  - Phone our Freephone number (0800 967 9679);
  - Send an email to community.relations@manairport.co.uk;
  - Come to an outreach session (details are on our website);
  - Look at the airspace change web page [www.manchesterairportco.uk/airspacechange](http://www.manchesterairportco.uk/airspacechange).

- You can watch aircraft movements and look at heights and positions over the ground using [webtrak](http://webtrak), which is on our website [manchesterairport.co.uk/webtrak](http://manchesterairport.co.uk/webtrak).
There are four routes with westerly departures shown on this diagram. These are used for on average 78% of our flights. In 2015 there were 20,840 departures on route EKLA1R (Runway 1) and route EKLA1Y (Runway 2) – 30% of all westerly departures.

Our information is based on the most recent complete year, which was 2015, and our busiest month in that year, August, compared to our quietest month, February. The following graphics focus on the combined information from routes EKLA1R and EKLA1Y heading West and North travelling to the USA and Scotland.

NUMBER OF DAYS WESTERLY DEPARTURES USED BY YEAR

<table>
<thead>
<tr>
<th>Year</th>
<th>Days EKLA1R</th>
<th>Days EKLA1Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>281</td>
<td>1,281</td>
</tr>
<tr>
<td>2011</td>
<td>337</td>
<td>344</td>
</tr>
<tr>
<td>2012</td>
<td>310</td>
<td>339</td>
</tr>
<tr>
<td>2013</td>
<td>327</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The accuracy with which an aircraft navigates depends on the following:
- The size of the aircraft
- What technology the aircraft has on board
- Weather conditions
- How the pilot interprets instructions.

The map opposite shows the general position and spread of flights using the EKLA1R and EKLA1Y routes in August 2015.

At the beginning of the departure, the aircraft is dark blue. As it becomes higher above the ground, the colour changes to light blue (3,000 feet) and finally to pink (5,000 feet), which is the highest point at which the aircraft must stay on the route.

WILL THINGS CHANGE IN THE FUTURE?

ARCVAY
Over time, airlines will buy new aircraft. The improved engines are quieter and more efficient.

The new dealer plans to build quieter and with less friction, significantly reducing noise and emissions. All of this being beneficial to communities that the aircraft fly over.

Currently aircraft using the EKLA1R and EKLA1Y routes range from small 10-seat aircraft up to the large 400-seat aircraft. This is the most common is the 100- to 200-seat aircraft, which accounts for 61% of all traffic.

It is likely there will be changes in the future due to:
- A national policy, led by the CAA, to encourage airspace for improved efficiency and maintaining safety.
- Aerial navigation replacing navigational aids on the ground, enabling aircraft to fly more accurately following the centre line of the departure route on each departure.
- Improved technology on-board new aircraft, offering the opportunity for greater efficiency and reduced noise.

AESPACE
A review of upper airspace (above 24,000 feet) is taking place. This will reposition some of the main areas over the UK to optimise efficiency and improve the customer experience by allowing more flights to be run.

The review process will also enable us to create the best possible design to make sure we can achieve Manchester Airport’s potential by ensuring further routes to destinations around the world. This will create more jobs and boost the region’s economy.

The changes relate to three levels of airspace:
- High level – above 7,000 feet heading to the final destination
- Medium – below 7,000 feet heading to the final destination airport
- Departure – between 0 and 7,000 feet leaving the airport to join the high level routes

ARRIVALS
Currently aircraft approach the airport they are landing at and wait for an instruction to land. Ideally, the approach is a continuous descent to land as this is fuel efficient and quiet.

If aircraft need to wait, they go into a ‘holding pattern’ away from the airfield. As a part of this project, NATS will examine if this is the best way to control aircraft approaching the airfield and before they land.

The graphics below show the height of aircraft on the EKLA1R and EKLA1Y routes at the phases marked on the routes. They show the concentration of aircraft in the centre of the routes and the height above was level.

Runway 2 ends one mile further to the West than Runway 1 and 325 yards further South. You can see the two distinct runway departure routes close to the end of the Runway in the chart below at Town Lane. The difference between the two departure trade reduces as you move further along the routes.