Manchester Airport
Departure Routes
Information Pack

NORTHERLY DEPARTURES IN WESTERLY OPERATIONS (ROUTES SONEX1R AND SONEX1Y)

Flying over: Mobberley / North Knutsford / Mere / Rostherne / Little Bollington / Partington

This document explains how we operate now and provides some information about the number of aircraft and passengers currently flying from Manchester Airport.
Manchester Airport Departure Routes Information Pack – 2017 data

ABOUT YOUR AIRPORT

Manchester Airport officially opened on 25 June 1938 and is today owned by the 10 Councils of Greater Manchester and Industry Funds Management (IFM), with four airports in the group.

1939 saw 7600 passengers per year…

…today it’s grown to

28M

2017 Manchester Airport joined the list of top 20 European airports.

FLYING TO 210 DESTINATIONS

in 60 countries including China, USA, the Middle East and Europe.

The Airport supports the employment of 45000 jobs in the region with 24500 people directly employed on our site.

Supporting over 8000 children in education every year. Manchester Airport teacher resources for key stages 1, 2 and 3 are available at www.magworld.com/education.

Manchester Airport – the largest outside the South East – delivers £1.7bn in the North West economy.

Manchester Airport Departure Routes Information Pack – 2017 data

Manchester Airport

MAG East Midlands Airport

MAG London Stansted Airport

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HOW WE OPERATE

USE OF RUNWAYS

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 we are doing maintenance on Runway 1.

As the number of flights has increased, we need to extend the times during which we use both runways. This will happen gradually from April until 9 July 2018. The changes will reduce delays and increase efficiency. For more information about this see our web page at www.manchesterairport.co.uk/dualrunwayuse.

We have a Night Noise Policy which means that we do operate at night, but flights are restricted. You can read more about our Night Noise Policy at www.manchesterairport.co.uk/nightnoise.

<table>
<thead>
<tr>
<th>DAYS</th>
<th>TIMES WHEN TWO RUNWAYS USED</th>
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<tbody>
<tr>
<td></td>
<td>Summer season</td>
</tr>
<tr>
<td></td>
<td>2 April to 9 July 2018</td>
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<tr>
<td></td>
<td>From 9 July 2018</td>
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<tr>
<td>MONDAY TO FRIDAY</td>
<td>6.30am to 10.30am</td>
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<td></td>
<td>and 1pm to 8pm</td>
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<tr>
<td>SATURDAY</td>
<td>6.30am to 10.30am</td>
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<tr>
<td></td>
<td>and 1pm to 4pm</td>
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<tr>
<td>SUNDAY</td>
<td>1pm to 5pm</td>
</tr>
<tr>
<td></td>
<td>6am to 9.30am</td>
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<tr>
<td></td>
<td>and 1pm to 9pm</td>
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</tbody>
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RUNWAY DIRECTION

For safety reasons, aircraft must land and take off into the wind. At Manchester Airport the wind usually blows from the West, meaning aircraft approach from the East (over Stockport and Heald Green) and take off to the West (towards Knutsford). 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 Knutsford) and take off to the East (over Heald Green and Stockport). This is known as ‘easterly operations’.

On average, between 70% and 80% of our departures each year will be westerly operations. In 2017, 85% of flights were westerly operations and 15% of flights were easterly operations.

The wind direction may change several times in a day, so we may change our direction of operations to reflect this. The table above shows the percentage of movements in each direction over the last eight years.
There are four routes with weekly departures shown on this diagram. These are used for an average 85% of our flights. In 2017 there were 31735 departures on route SONEX1R (Runway 1) and route SONEX1Y (Runway 2) – 37% of all weekly departures.

Our information is based on the most recent complete year, which was 2017, and our busiest month in that year (August), compared to our quietest month (February). The following graphics focus on the combined information from routes SONEX1R and SONEX1Y heading West and North travelling to the USA and Scotland.

The accuracy with which an aircraft navigates depends on the following.
- What technology the aircraft has on board
- The size of the aircraft
- Weather conditions
- The weight of an aircraft
- Departure – between 0 and 7000 feet leaving the centre of the route
- Arrival – over 7000 feet approaching the centre of the route
- Runway use depends on the wind direction, with weekly departures on SONEX1R or SONEX1Y routes for 29 days during August

During August there were 479 departures during the morning peak hours of 7am to 10am compared to just 49 during the night from 11pm to 6am.

The map opposite shows the general position and spread of flights using the SONEX1R and SONEX1Y routes in August 2017. At the beginning of the departure, the aircraft is dark blue. As it becomes higher above the ground, the colour changes to light blue (3000 feet) and finally to green at 5000 feet, which is the highest point at which the aircraft must stay on the route.

The maximum number of departures on a single day in August was 142 compared to a maximum in February of 117.

The graphics below show the height of aircraft on the two departure routes above you can see the two distinct runway departure routes and the height above sea level.

During August there were 301 departures during the morning period of 8am to 10am.

In February there were 117 departures during the night from 11pm to 6am.

WILL THINGS CHANGE IN THE FUTURE?

Aircraft
- Over time, airlines will buy new aircraft. The improved engines are quieter and more efficient. The new sleeker planes are able to climb quicker and with less friction, significantly reducing noise and emissions.
- All of this is beneficial to communities that the aircraft fly over.
- Aircraft using the SONEX1R and SONEX1Y routes range from small 10-seat aircraft up to the larger 400-seat aircraft. The most common is the 100- to 200-seat aircraft, which accounts for 61% of all flights.
- It’s likely there will be changes in the future due to a national policy, led by the CAA, to reorganise airspace for improved efficiency and maintaining safety.
- Satellite navigation replacing navigational aids on the ground, enabling aircraft to fly more accurately following the centre line of the departure route on each departure, and
- Improved technology onboard new aircraft, offering the opportunity for greater efficiency and reducing noise.

Guidance on how airports should manage change was issued by the CAA in December 2017, in a document called Airspace Design CAP1616. This is available on the CAA website.
MEASURING NOISE

Generally, the closer that you live to an airport and a departure or arrival route, the more noise you will hear.

‘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 represented by a number. Current Government guidelines recommend noise insulation such as high performance glazing or loft insulation at 63 decibels. If you live in this area, you can apply for help with this at www.manchesterairport.co.uk/soundinsulation.

Noise contours are common for measuring noise around other transport routes such as roads and railways.

WANT TO KNOW MORE?

There is a booklet like this one for each of our departure and arrival routes. Extra information is already available on our website in a range of formats including films and downloadable information sheets. You can see them at www.manchesterairport.co.uk/runwaydatasheet.

If Manchester Airport consults about changes to airspace in the future it will be widely publicised. However if you would like to be on a mailing list to ensure that you receive information directly please email to community.relations@manairport.co.uk

If you would like to talk to us you could:
- phone our Freephone number (08000 967967);
- send an email to community.relations@manairport.co.uk;
- come to an outreach session (details are on our website at www.manchesterairport.co.uk/outreach).

You can watch aircraft movements and look at heights and positions over the ground using webtrak, which is on our website at www.manchesterairport.co.uk/webtrak.