Manchester Airport
Departure Routes
Information Pack

SOUTHERLY DEPARTURES IN WESTERLY OPERATIONS (ROUTES SANBA1R AND SANBA1Y)

Flying over: Mobberley / North Knutsford / Mere / Over Tabley / Plumley / Lostock Gralam / Lostock Green / Lach Dennis

This document explains how we operate now and provides some information about the number of aircraft and passengers currently flying from Manchester Airport.
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.

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.

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

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 westerly departures shown on this diagram. These are used for around 85% of our flights.

In 2017 there were 24177 departures on route SANBA1R (Runway 1) and route SANBA1Y (Runway 2) – 28% of all westerly 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 graphs focus on the combined information from routes SANBA1R and SANBA1Y heading West and North to Manchester Airport.

Routes SANBA1R and SANBA1Y to the USA and Scotland

NUMBER OF DAYS WESTERLY DEPARTURES USED BY YEAR

<table>
<thead>
<tr>
<th>Year</th>
<th>SANBA1R</th>
<th>SANBA1Y</th>
</tr>
</thead>
<tbody>
<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>331</td>
</tr>
<tr>
<td>2014</td>
<td></td>
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<tr>
<td>2015</td>
<td></td>
<td></td>
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<tr>
<td>2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

During March there were...

The maximum number of departures on a single day in August was...

In February there were...

The number of departures during the peak morning hours (7am to 9am)...

And during the night from 11pm to 6am...

In 2017, August was our busiest month of westerly operations on the SANBA1R and SANBA1Y routes, when there were...

...while February was our quietest month.

Runway use depends on the wind direction, with westerly departures on SANBA1R or EXKAD1Y on 29 days during August

Compared to a maximum in February of...

WILL THINGS CHANGE IN THE FUTURE?

AIRCRAFT

Over time, airlines will buy new aircraft. The improved engines are quieter and more efficient. The new shocker 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 SANBA1R and SANBA1Y 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 63% 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 on board new aircraft, offering the opportunity for greater efficiency and reduced 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’s website.

ARPASPACE

A review of upper airspace (above 24500 feet) is taking place. This will reposition some of the main airways over the UK to increase efficiency and improve the customer experience with less time in hold, more timely arrivals and departures and reduced emissions. This review process will allow a middle course 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 – over 7000 feet where aircraft are travelling to or from their final destination
- Arrival – below 7000 feet heading to the final destination airport
- Departure – between 0 and 7000 feet leaving the airport to join the high level routes

ARRIVALS

Aircraft currently 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 a fuel efficient and quiet.

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

There is more information about arrivals aircraft in our arrivals data sheet. You can find this at www.manchesterairport.co.uk/runwaydatasheet.
**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.