72 Red numbers in this direction. This is as a result of most aircraft arriving can see the rings extend to the North East. and arrival routes. In the diagram below you The shape of the contours is affected by the departure around other transport routes such as roads and railways. Use of noise contours is common for measuring noise mq2 ot mq [ YADNUS 6.30am to 10.30am 6.30am to 10.30am **SATURDAY** and I pm to 8pm **TO FRIDAY** 6.30am to 10.30am 6.30am to 10.30am **MONDAY** 

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 six years.

TIMES WHEN TWO RUNWAYS USED

Summer Season 2017 Winter Season 2016-2017

 YEAR
 DIRECTION OF OPERATION
 PERCENTAGE OF ARRIVALS
 75%

 2013
 Easterly
 75%

 2014
 Easterly
 73%

 2014
 Easterly
 73%

 2015
 Easterly
 73%

 2016
 73%
 73%

 2017
 Easterly
 73%

 2018
 73%
 73%

 2019
 73%
 73%

 2010
 73%
 73%

 2010
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 2010
 73%

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 at www.manchesterairport.co.uk/soundinsulation.

'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.

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

### **WEASURING NOISE**

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.

Communities asked us to keep the use of both runways at the same time to a minimum, so where possible we will use only Runway 1 during the day. The hours that both runways are open can change from year to year. Times for 2017 are shown to the right.

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.

SYAWMUS 40 32U

On average, between 70% and 80% of our departures each year will be westerly operations. In 2016, 75% of flights were westerly operations and 25% of flights were in easterly 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'.

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'.

RUNWAY DIRECTION

HOW WE OPERATE



manchesterairport.co.uk

Manchester Airport Arrival Routes Information Pack

# WILL THINGS CHANGE IN THE FUTURE?

## Over time,

Over time, airlines will buy new aircraft. The improved engines are quieter and more efficient. The new sleeker planes can glide through the air with less friction, significantly reducing noise and emissions. All of this is beneficial to the communities that aircraft fly over.

#### AIRSPACE

An international review of upper airspace (above 24,500 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 also enable us to create the best possible design to make sure we can achieve Manchester Airport's potential by securing 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 a this is fuel efficient and quiet.

If the 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.

#### CONSULTATION ON CHANGES

The Department for Transport are supporting changes to airspace. The Civil Aviation Authority (CAA) will manage this process on their behalf. In 2016 there was a consultation on how best to manage any change in the future. We and our Consultative Committee, along with many other airports and other interested parties throughout the UK, responded to that consultation. The outcome of this will be published in 2017 and form a framework to manage consultations on change in the future. We will need to hold consultations for any changes in the future.

2016 ARRIVALS INFORMATION

# Manchester Airport Arrival Routes Information Pack

This document explains how aircraft approach Manchester Airport from the East and West. It also provides information about the number of aircraft arriving at Manchester Airport.

#### WANT TO KNOW MORE?

There is a booklet like this one for each of our departure routes.

Extra information is already available on our website in a range of formats including films and downloadable information sheets. You can see them all on our website at www.manchesterairport.co.uk/runwaydatasheet.

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; or
- come to an outreach session (details are on our website).

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.







manchesterairport.co.uk

