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.

manchesterairport.co.uk

MAG Manchester Airport

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.

MAG Manchester Airport

MAG East Midlands Airport

MAG London Stansted Airport

- 6411 volunteer hours in the community in 2016/2017.
- Our Airport Academy helped 469 people into work on our site.
- Community Trust Fund supporting community groups with over £3million in grants since 1997.

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.

IN **2001** A SECOND RUNWAY WAS ADDED

OVER **100** STANDS

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.

WITH THE INFRASTRUCTURE FOR OVER **70** AIRLINES

AND 200 ON-SITE OPERATORS

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**.

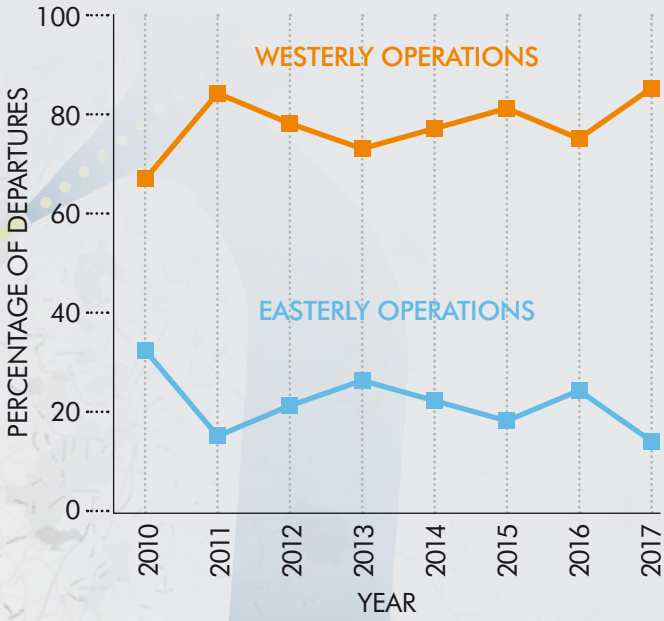
	TIMES WHEN TWO RUNWAYS USED	
DAYS	Summer season 2 April to 9 July 2018	From 9 July 2018
MONDAY TO FRIDAY	6.30am to 10.30am and 1pm to 8pm	6am to 9pm
SATURDAY	6.30am to 10.30am and 1pm to 4pm	6am to 4pm
SUNDAY	1pm to 5pm	6am to 9.30am and 1pm to 9pm

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.

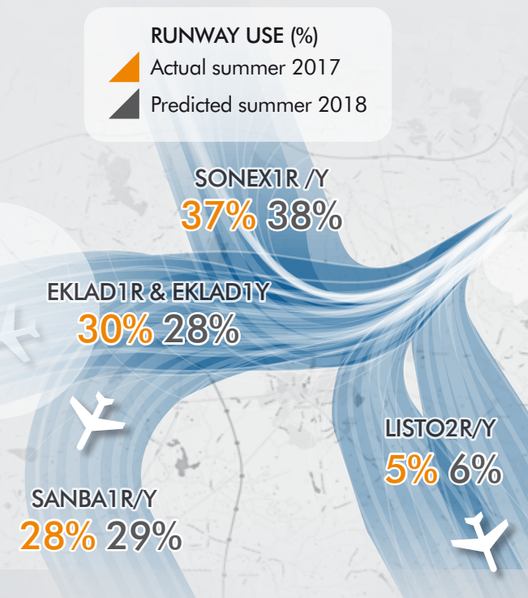


The wind direction may change several times in a day, so we may change our direction of operations to reflect this. The table above shows the percentage of movements in each direction over the last eight years.

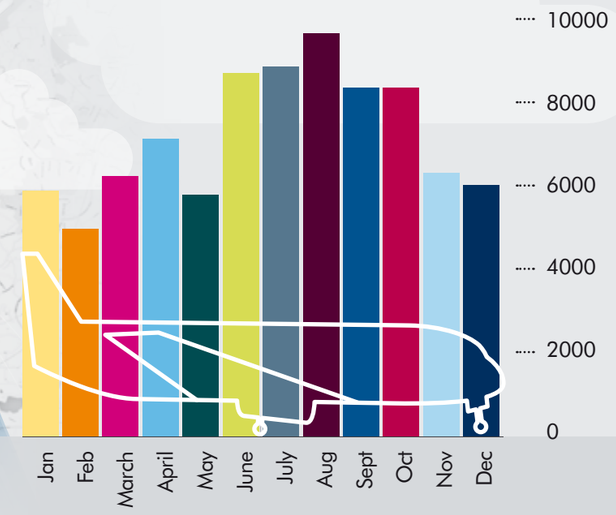
LANDING PATHS

ROUTES DEPARTING TO THE WEST

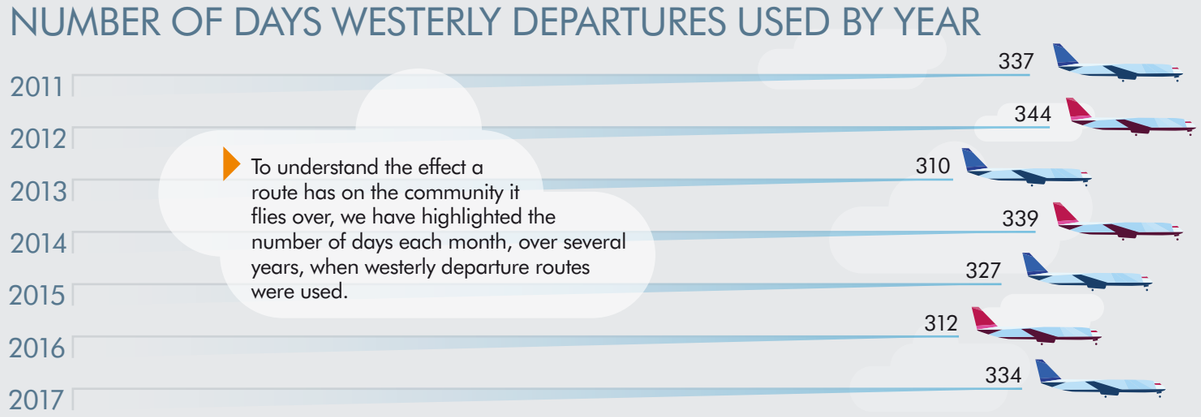
- There are four routes with westerly departures shown on this diagram. These are used for an average 85% of our flights. In 2017 there were 24197 departures on route SANBA1R (Runway 1) and route SANBA1Y (Runway 2) – 28% of all westerly departures.
- Our information is based on the most recent complete year, which was 2017, and our busiest month in that year (August), compared to our quietest month (February).
- The following graphics focus on the combined information from routes SANBA1R and SANBA1Y heading West and North travelling to the USA and Scotland.



NUMBER OF WESTERLY DEPARTURES EACH MONTH DURING 2017



NUMBER OF DAYS WESTERLY DEPARTURES USED BY YEAR



- To understand the effect a route has on the community it flies over, we have highlighted the number of days each month, over several years, when westerly departure routes were used.

TOTAL NUMBER OF DAYS EKLAD1/Y USED BETWEEN 2010 AND 2017

2591

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

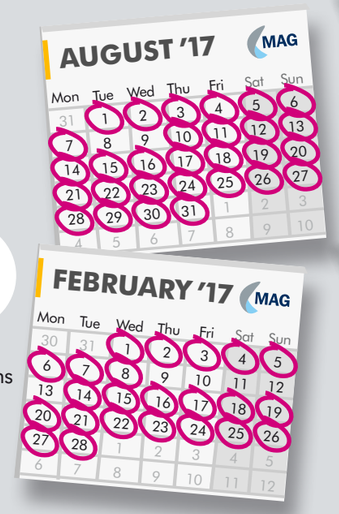
2990 departures

…while February was our quietest month.

1354 departures

- Runway use depends on the wind direction, with westerly departures on EKLAD1R or EKLAD1Y routes for 29 days during August

…and with no westerly operations on the EKLAD1R or EKLAD1Y routes on 23 days in February.



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

130

…compared to a maximum in February of

82

- During August there were…

698 departures during the morning peak hours of 7am to 9am.

compared to just…

99 during the night from 11pm to 6am.

- In February there were…

206 departures during the morning period of 8am to 10am.

compared to just…

13 during the night from 11pm to 6am.

POSITION OF AIRCRAFT ALONG ROUTES SANBA1R AND SANBA1Y

Currently aircraft navigate using navigational equipment on the ground close to and around our runways. A series of instructions will navigate the aircraft along the whole route (for example, to fly straight ahead for a set distance and then turn at a particular point to a compass bearing of…).

The accuracy with which an aircraft navigates depends on the following.

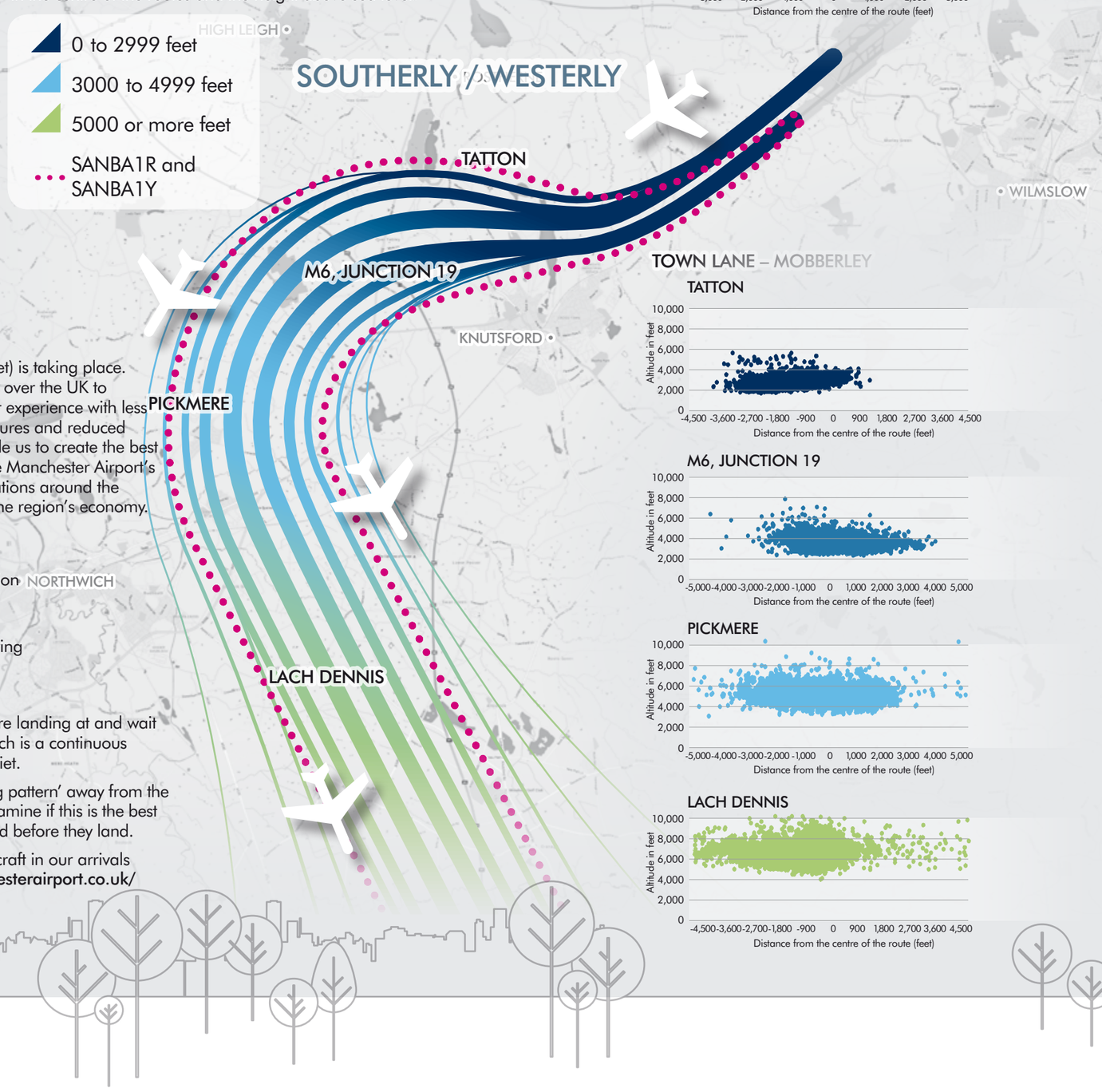
- The size of the aircraft
- What technology the aircraft has on board
- The weight of an aircraft
- Weather conditions
- How the pilot interprets instructions

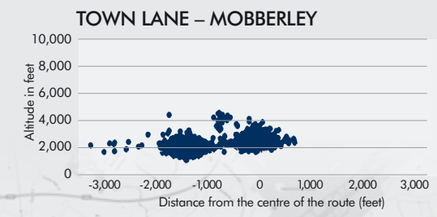
The map opposite shows the general position and spread of flights using the SANBA1R and SANBA1Y routes in August 2017.

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.

Runway 2 ends one mile further to the West than Runway 1, and 325 yards further South. In the diagram above you can see the two distinct runway departure routes close to the ends of the runways at Town Lane. The distance between the two departure routes increases as you move further along the routes.

The graphics below show the height of aircraft on the SANBA1R and SANBA1Y routes at the places marked on the routes. They show the concentration of aircraft in the centre of the routes and the height above sea level.





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 plane is 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 61% of all flights.

It is 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 website.

AIRSPACE

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 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 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 before they land.

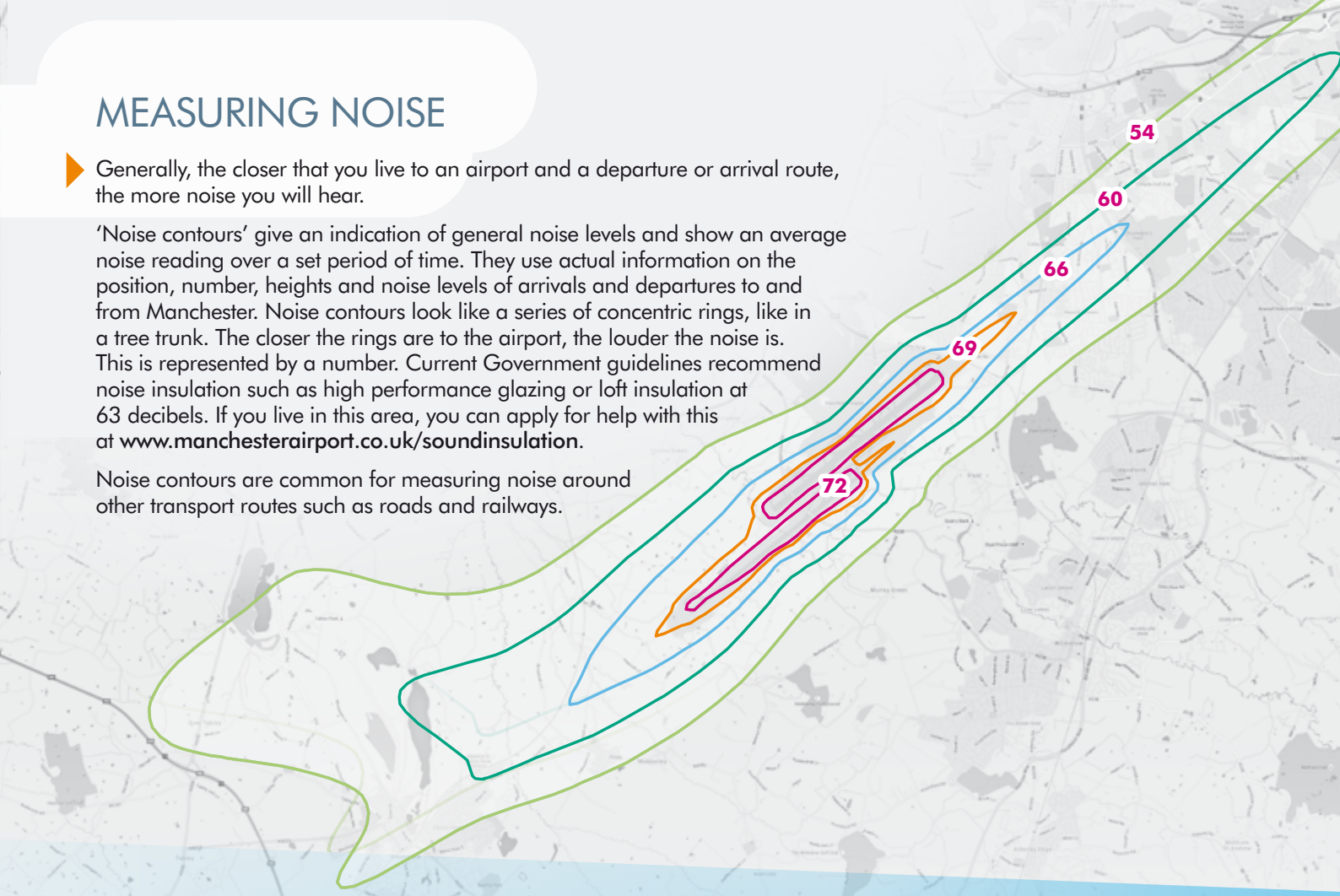
There is more information about arriving aircraft in our arrivals data sheet. You can find this at **www.manchesterairport.co.uk/runwaydatasheet**.

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**.

Crystal Mark 22702
Clarity approved by Plain English Campaign