Appendix 1

Engagement Materials Used

Contains:

- Part A – Engagement document
- Part B – Focus Groups Phase 1 Presentation Slides
- Part C – Focus Groups Phase 2 Presentation Slides

THE FUTURE OF AIRSPACE

Appendix 1 – Part A

Engagement Document

Manchester Airport
Future Airspace

MAG
Manchester
Airport

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BE PART OF THE CONVERSATION

The future of airspace

August 2019

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Step 1B and Manchester Airport

A detailed overview of our approach to this particular part of the process.

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Step 1B questions and how to respond

The specific things we are asking you to consider at this point in time and the ways in which you can respond.

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Frequently asked questions

Answers to questions you may have about the process and how you can contact us if you have any other questions.

Purpose of this document

This document tells you how you can join the discussion about the future of airspace around Manchester Airport.

The Government has a programme to modernise airspace across the whole of the UK (the Airspace Modernisation Strategy). It covers all parts of the country and different altitudes (heights).

We are specifically looking at aircraft arriving at or departing from Manchester Airport and flying at heights of up to 7,000 feet.

The process of modernising this airspace (CAP1616) will take more than two years and will involve a series of different stages.

We are currently in the first stage of the process, which involves us asking those affected by our business to give us their views on the principles we should consider when designing new flight paths.

This document sets out our approach to gathering views and deciding on the 'design principles' we will adopt as we move through the other stages of the airspace-modernisation process. This stage in the process is known as step 1B.

There are several questions in this document. Your answers will help us to understand what principles are most important to you, guide our decisions through the design process, and help us shape changes that could provide the most significant benefits.

The modernisation of airspace around Manchester Airport will form part of wider plans covering the whole of the north of England. This will naturally involve other airports, and we will follow a co-ordinated approach with them.

Throughout this document, we will tell you how you can get involved or find out more about airspace modernisation generally.

This document is structured in a way that gives you the chance to learn about the background to airspace modernisation and the process we will follow. We are asking very specific questions. To help you there are some frequently asked questions at the back.

We hope you find this document useful and look forward to hearing your views.

> "
At Manchester Airport we have a long history of talking to and working with the communities that we serve.

Andrew Cowan

Andrew Cowan
CEO
Manchester Airport

Foreword

We all rely on transport to live our daily lives and go about our business.

The better our transport links, the more integrated we are as a society, the more productive we are as individuals or businesses, and the more competitive we are as an economy.

Put another way, our ability to travel for work or pleasure, or to get the things we make to market, depends on how easy it is to get from A to B, whether that is within the UK or around the world.

The aviation sector is central to this, and Manchester Airport is proud to play its role as the main international airport serving the north of England.

The Government has made clear how important the continued sustainable growth of the aviation sector is.

As the UK's third largest airport, we want to continue to open up opportunities for people to experience new places, for local companies to trade internationally, and to welcome visitors from all corners of the world to see everything that is great about our city, the north and the whole of the UK.

That is why we are investing more than £1 billion in our facilities, with our exciting transformation of Terminal 2 and our airfield, and new technology on the ground, to make movements between the terminals and the runways more efficient.

We are working to make the experience of our passengers world-class, making journeys more reliable, quicker, quieter and cleaner.

We want to do all of this in a way that respects, enriches and creates opportunities for the communities we serve. That is the way we have always done things and will continue to do things.

However, one thing that is currently preventing the UK aviation industry from being the best it can be is the fact that our nation's airspace is among the busiest in the world and will become increasingly congested unless something is done about it. That is what we are talking to you about in this document.

Like much of the UK's transport system, our airspace was designed for a different era. Flight paths are not as efficient as they could be and do not allow us to benefit from modern aircraft, which have developed to be quicker and quieter, and to reduce emissions. Some of the technology we use to operate our airspace is out of date and needs replacing.

The UK Government believes that the time has come to modernise our airspace and has developed a programme of modernisation that covers the whole of the UK. The airspace around Manchester Airport – everything up to 7,000 feet – is just one part of that. However, I know it is the bit that you will be most interested in. So I hope this document will explain how we are going to approach this modernisation and your role in it.

The Civil Aviation Authority (CAA), the aviation industry's regulator, has developed a process to manage this review of future airspace. That process is set out in the CAA's guidance document, CAP1616, which outlines the regulatory process which all proposals for changes to airspace must follow. We will be working with the CAA to introduce changes at Manchester Airport.

At Manchester Airport, we have a long history of talking to and working with the communities that we serve. This project of redesigning flight paths will be no different. We want you to have your say at every stage of the process, which is likely to last for around two years. This document only relates to the early stages of CAP1616, but explains a bit about the latter stages as well.

My promise to you is that we will keep you informed about where we are in the process, be open and honest in the information we provide, and always listen to the views of the communities that we serve.

In the initial stages of the project we are asking for views on the principles we will follow as we begin to develop our proposed flight paths. This document explains this in more detail and asks a number of questions that we would like your views on.

We look forward to working with you and hope that together we can develop a change that benefits us all.

1 Introduction

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> Imagine if we hadn't changed roads since 1960 – things just wouldn't work. We need an infrastructure to be modernised to be as efficient as possible for the aviation industry and the communities we serve.

John Mayhew
General Manager of NATS at Manchester Airport

Manchester Airport

An average of

553

arrivals and departures each day (202,000 in total) in the year ending 31 March 2019.

What is airspace?

Airspace is the area from the ground to an altitude of 66,000 feet. The UK airspace is among the busiest in the world, with 1000s of aircraft either passing through our airspace or landing and departing at airports. NATS is responsible for managing UK airspace. It also manages the local airspace at Manchester Airport, making sure that it is safely co-ordinated with the national control centre and other airports nearby.

Why is airspace changing?

The way airspace is managed in the UK has changed little since commercial flights began in the 1950s. Although advances in technology have brought about improvements, most of the way our skies are managed was designed for a different era. Developments in aircraft technology, and the fact that more people than ever are flying, mean that the Government has asked the aviation industry to overhaul the way UK airspace is managed. As part of a co-ordinated national programme, all airports are now taking a fresh look at how aircraft fly below 7,000 feet, to see what improvements can be made.

We hope that the modern ways of flying that are now available to us will mean that we can reduce delays, make customers' journeys more reliable, reduce the effect flying has on the environment, better manage some of the local effects of flying (such as noise nuisance) and achieve further improvements in safety.

How airspace is managed at Manchester Airport

We have two runways handling an average of 553 arrivals and departures each day (202,000 in total in the year ending 31 March 2019). Most flights from Manchester are passenger flights, some of which also carry cargo in their 'belly' hold. There are also a few pure freight flights. NATS co-ordinates flights from Manchester with those from neighbouring passenger airports at Liverpool, Leeds, East Midlands and Doncaster, as well as smaller airports such as Hawarden (where they make the Airbus wings) and BAE Systems in Warton (where they make military aircraft).

We are working with all of these airports, as a part of the Airspace Modernisation Strategy, while we review all departure and arrival routes and the flight paths aircraft follow around the airport and below 7,000 feet. (NATS is responsible for reviewing flight paths above 7,000 feet.) This document sets out the approach we are taking at this step 1B.

2

The airspace-modernisation process

Who is involved?

In 2017 the Government published a policy on the future of UK airspace. The policy made it clear that it is essential to modernise UK airspace. The CAA is responsible for the process of modernising airspace. All changes to airspace must follow the CAA's process and get its approval at each of the stages shown on pages 10 and 11.

The Government's policy requires all airports to modernise airspace for landing and departing aircraft flying at up to 7,000 feet. To make sure all changes to airspace work together, the Government and the CAA have jointly set up a new body, the Airspace Change Organisation Group (ACOG), to co-ordinate the programme of airspace-modernisation projects across airports and upper airspace.

How the process for modernising airspace works

The CAA published a new process, called CAP1616, to manage changes to airspace. You can read about this process on the CAA website at https://airspacechange.caa.co.uk

The process set out in CAP1616 requires any changes to airspace to pass through seven stages.

Airports must consult widely at different stages of the process and be open and honest throughout.

For the most up-to-date information, go to manchesterairport.co.uk/futureairspace or email future.airspace@manairport.co.uk.

In March 2019, at the very first stage of the process (step 1A), we sent a 'Statement of Need' to the CAA to explain why we want to change our flight paths. We also attended an Assessment Meeting to discuss our proposals for change and how we plan to manage the process.

The CAA confirmed that it was appropriate for us to change the flight paths aircraft follow below 7,000 feet when landing at or flying out of the airport, and provisionally assessed it as a level 1 change. This means the full CAP1616 process applies. To make the details of all changes available to everyone, the CAA has created a dedicated website (https://airspacechange.caa.co.uk/about-Airspace-changes) with CAP1616 on it.

This document sets out our approach to the next part of the airspace change process (step 1B). At this point we are trying to set some principles to apply when we design flight paths.

About Step 1B

Step 1B is the second part of the 'Define' stage of CAP1616. It considers the general principles we should follow when we eventually design flight paths (our design principles).

Although there will be formal public consultations on specific changes later in the process, at step 1B we are asking local communities and those who have an interest in our airport about the general principles they prefer, so that we have a good understanding of the things that are important to them. This document sets out how we will do that.
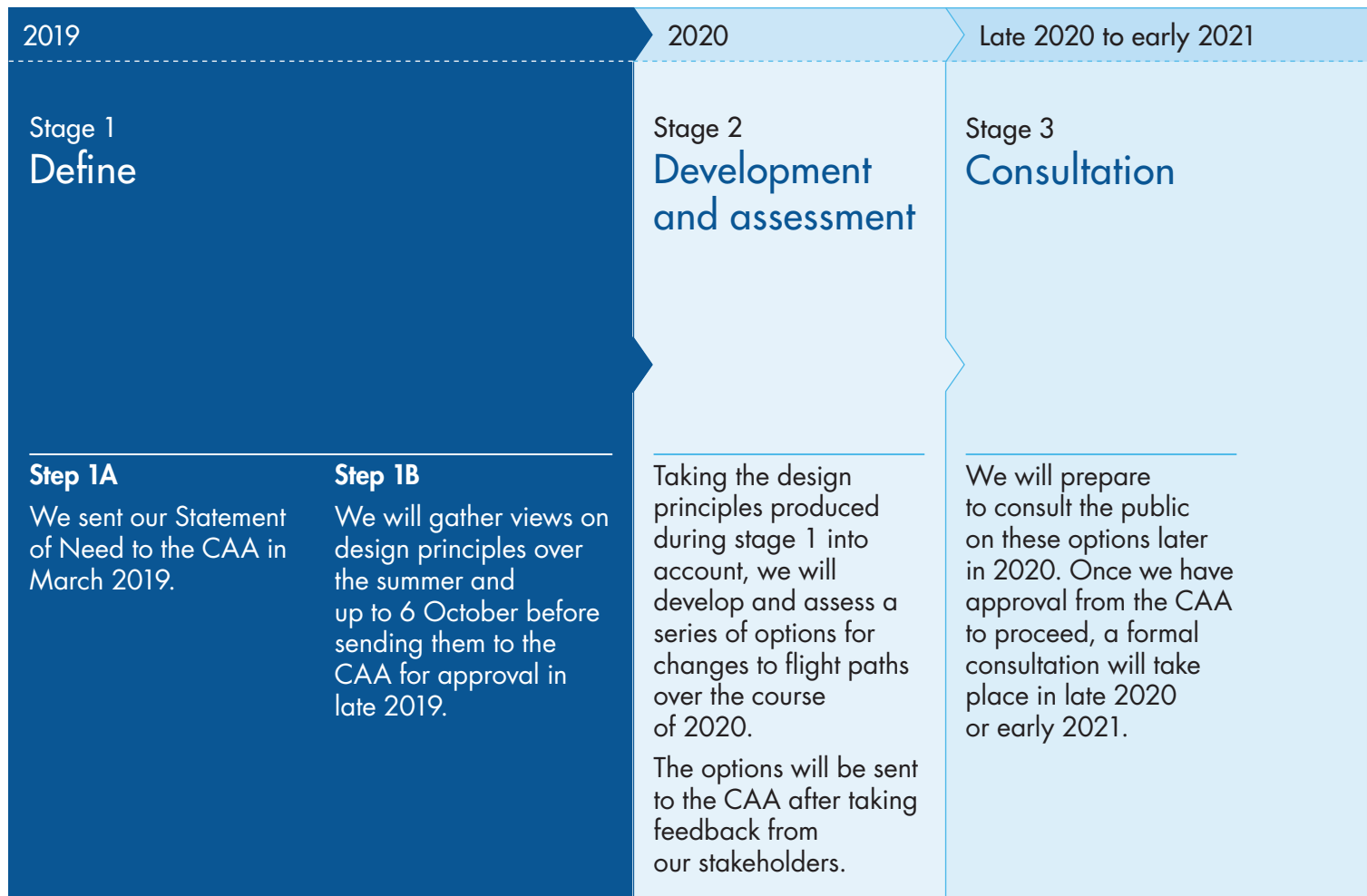
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[1] Read more online: caa.co.uk/cap1616

[1] Read more online: https://airspacechange.caa.co.uk

Manchester Airport future airspace

– anticipated timetable

We are here

2019	2020	Late 2020 to early 2021
Stage 1 **Define**	**Stage 2** **Development and assessment**	**Stage 3** **Consultation**

Step 1A

We sent our Statement of Need to the CAA in March 2019.

Step 1B

We will gather views on design principles over the summer and up to 6 October before sending them to the CAA for approval in late 2019.

Taking the design principles produced during stage 1 into account, we will develop and assess a series of options for changes to flight paths over the course of 2020.

The options will be sent to the CAA after taking feedback from our stakeholders.

We will prepare to consult the public on these options later in 2020. Once we have approval from the CAA to proceed, a formal consultation will take place in late 2020 or early 2021.

Mid-2021	Late 2021	Early 2022	2022 onwards
Stage 4 **Update and submission of proposals**	Stage 5 **Decision**	Stage 6 **Implementation**	Stage 7 **Post-implementation review**
Based on the outcome of the consultation, we will finalise our Airspace Change Proposal and send it to the CAA in mid-2021.	In late 2021 we expect the CAA's decision on whether to approve any airspace change.	If approved, any airspace change could come into force in March 2022.	The CAP1616 process gives the CAA and airports 12 months to review any change that has been made to airspace.

3

Step 1B and Manchester Airport

> " The aim of step 1B is for airports requesting change to have a good level of understanding of what design considerations are important to stakeholders.
>
> CAA - CAP1616 guidance

Read more online: manchesterairport.co.uk/designquestions

How we are gathering views

We have worked hard to identify all our stakeholders – the people and groups who can affect or be affected by a potential change. This should make sure we can gather a wide range of views during step 1B. The area within which we have identified these people and groups is shown opposite.

To make sure we collect a range of views, we are working with YouGov, a leading market-research company, to hold a series of focus groups (groups of stakeholders brought together to discuss proposals and offer feedback). We have invited a wide range of people, from the aviation world, local communities, businesses, elected representatives and national and regional organisations, to the meetings. YouGov has also recruited a representative sample of members of the general public to take part in these meetings, which will take place during September.

As well as the focus groups, we are directly contacting more than 1,000 stakeholders to tell them about the process that is under way. Any member of the public can comment on our design principles. This document and information about how you can get involved are also being posted on a dedicated website.

We are asking all those taking part in step 1B a series of questions. These questions are set out on pages 18 to 27 of this document and are online at manchesterairport.co.uk/futureairspace.

There are 11 questions, dealing with a range of considerations we feel need to be taken into account when developing our design principles. These include things like whether it is better to concentrate flight paths over one area or spread flights out more widely, and whether there are specific areas that flight paths should not go over.

If you want to give us your views you can do so by going to manchesterairport.co.uk/designquestions. If you want to be kept up to date on the process at Manchester Airport, under the General Data Protection Regulation (GDPR) we need your permission to keep your personal information for future correspondence. Also, you can see up-to-date information at manchesterairport.co.uk/futureairspace.
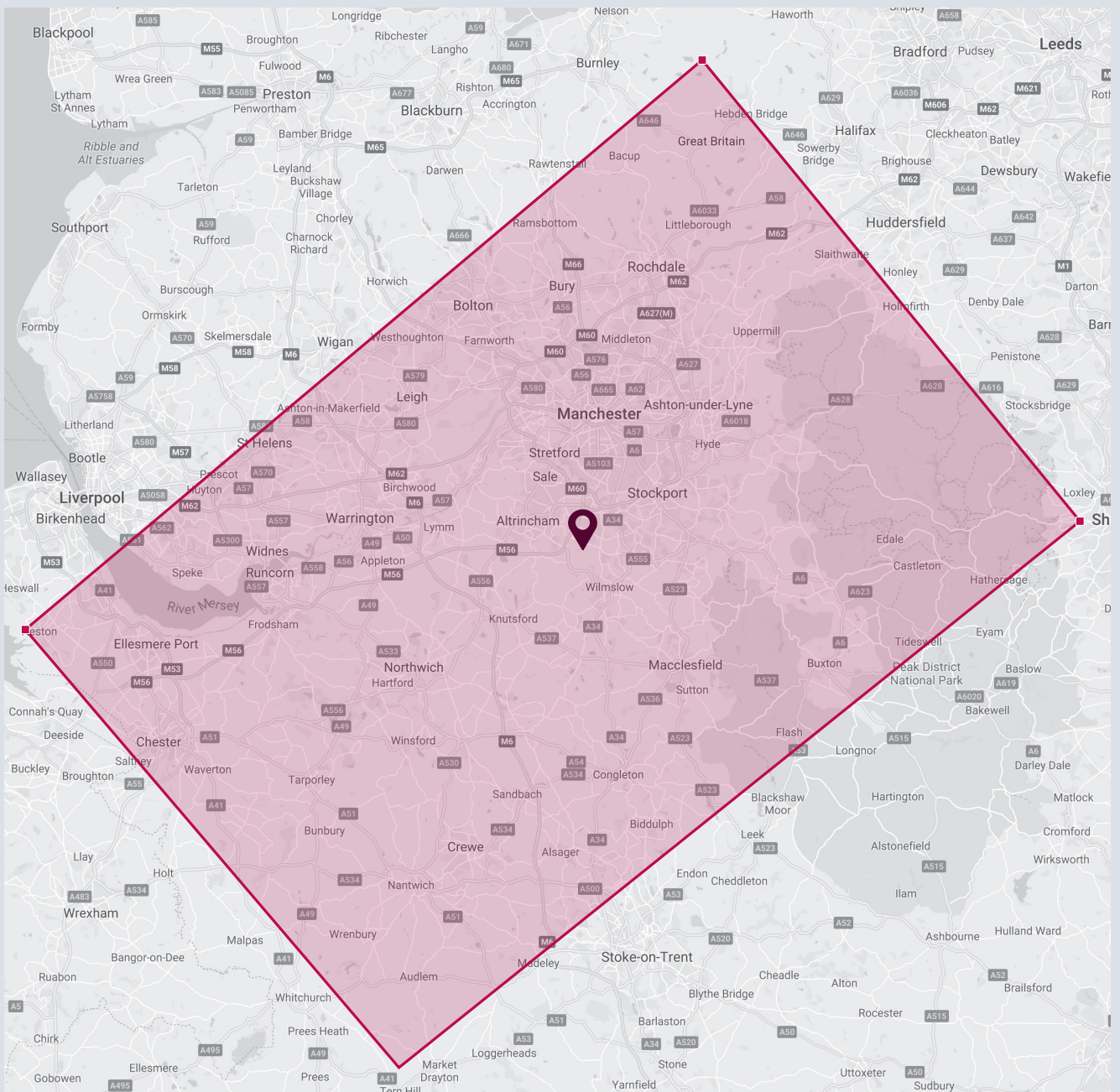
Manchester Airport area

As set out in the introduction, the Government requires us to modernise the way airspace is managed around the airport in areas where aircraft fly at up to 7,000 feet.

To make sure we can gather the views of stakeholders, we have identified the area any change may affect.

The area in red on the map below shows the area within which aircraft landing at and taking off from the airport will fly below 7,000 feet.

This map will guide our approach to engaging with interested parties at step 1B, but may get smaller as we refine our proposals through the later stages of the process.

📍 Manchester Airport

Step 1B and Manchester Airport

Stakeholder Reference Group

We have created a Stakeholder Reference Group (SRG) to provide independent advice and guidance on our communication and consultation plans.
The SRG will be chaired by Mr Stephen Wilkinson, Chair of the independent Manchester Airport Consultative Committee, who will be supported by a committee made up of representative stakeholders. The SRG will:

- meet regularly throughout the process to consider the suitability of our approach to defining design principles;

- help us to decide how best to manage the later stages of the process; and

- be independently managed by The Consultation Institute, an independent organisation that specialises in managing, and giving advice on, public consultations.

The purpose of the SRG is to help us make sure we are involving those likely to be affected by the airspace modernisation process, or interested in the airspace modernisation process.

Next steps

Up until 6 October 2019 we will be gathering views on what our design principles should be. We will gather views in the ways that we have set out in this document.

We will use the information we gather to help us produce a set of design principles which we will put forward to focus groups made up from those in early focus groups and the SRG, before we send them to the CAA with an explanation of how we have taken account of stakeholders' views.

We expect the CAA to review our proposals at the beginning of 2020. If it is satisfied with the proposals and that we have followed the process correctly, we will be able to proceed to the next stage of the process and begin developing flight path options.

At the moment we do not have any specific proposals for how airspace around Manchester Airport could change. The purpose of step 1B is to develop design principles that will help guide the more detailed work that will follow, and which we will consult stakeholders on in stage 3.

4

Step 1B questions and how to give your feedback

How to respond to the following questions

On the following pages, we ask a series of questions for you to consider. Your answers will help us develop the design principles we adopt.

In questions 1 to 8, we have presented the scenarios and two alternative views you may have about them. We ask you to choose one of those options. You can also give us a different view that reflects your priorities. We also ask you to explain your preference and add anything you think we should consider.

This document also tells you the various ways in which you can give your feedback.

You can send your response to these questions by going to manchesterairport.co.uk/ designquestions.

Want to know more?

If you would like to be on a mailing list to be informed of all developments in the project to modernise airspace, email future.airspace@manairport.co.uk to give us your contact details and authorise us to contact you to keep you updated. We will only use your details for the purposes of keeping you informed, and will delete them at the end of the process.

If you prefer, you can see the most up-to-date information at manchesterairport.co.uk/ futureairspace.

If you would like to talk to us you could:

- phone our Freephone number (08000 967 967);
- send an email to future.airspace@manairport.co.uk; or
- come to an outreach session (details are on our website at 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 (go to manchesterairport.co.uk/webtrak).

We produce a wide range of information sheets and videos describing how we operate. These are on our website (go to manchesterairport.co.uk/ livingneartheairport).

Step 1B questions and how to respond

Question 1

Avoid change or fly over new areas

Our flight paths were introduced after taking account of local views, and many have stayed the same for years.

Some people have chosen to live close to or under flight paths, perhaps because they are less affected by or concerned about aircraft noise. On the other hand, some people may have chosen to live in areas away from flight paths as they don't want aircraft flying over or close to their homes.

As we design our future flight paths, we need to consider whether to:

- prioritise keeping changes to a minimum to avoid flying over new areas (unless there is a strong reason to do so); or

- start with a 'clean sheet' and design new routes that might reduce the effect of aircraft noise, cut emissions and make better use of modern technology, but might fly over new areas as a result.

When we design our flight paths, which option below do you prefer and why?

Remember you can also use the box below to give us a different view that reflects your specific priorities.

Option 1 ☐	Option 2 ☐
Avoid aircraft flying over new areas, unless there is a strong case to do so.	Design the best possible routes (taking account of noise, emissions, efficiency and other relevant factors), even if this means flying over new areas.

Please use the box below to explain your preference and add anything you think we may have missed.

Please use the box below to explain your preference and add anything you think we may have missed.

Concentrating or spreading out flight paths

Modern aircraft can use satellite guidance to allow them to fly more accurately. This means flight paths can now concentrate aircraft so fewer people are overflown and affected by aircraft noise. However, the people who are overflown will be affected more than they previously were.
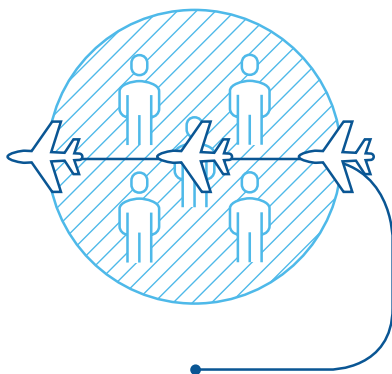
As an alternative, we can design flight paths that spread aircraft out over a wider area, perhaps using several alternative routes, and use varying flight paths on different days of the week or during different times of day to provide periods when there is no aircraft noise. If we take this approach, we will need to decide how long the periods of 'no aircraft noise' last to create significant benefit.

When we design our flight paths, which option below do you prefer and why?
Remember you can also use the box below to give us a different view that reflects your specific priorities.
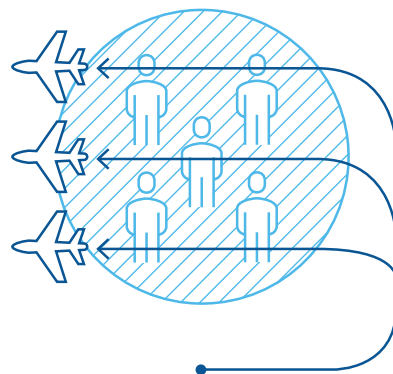
Option 1 ☐	Option 2 ☐
Concentrate flight paths, which will affect fewer people but to a greater extent.	Spread out flight paths, which will affect more people but to a lesser extent.
Please use the box below to explain your preference and add anything you think we may have missed.	Please use the box below to explain your preference and add anything you think we may have missed.

Step 1B questions and how to respond

Question 3

Flying over built-up areas

When designing flight paths, we need to consider the local communities that will be flown over and affected by aircraft noise. Our current routes avoid flying over built-up areas, where possible, as this was the advice from the Government at the time the flight paths were designed.

If we designed flight paths that flew over built-up areas, more people would be overflown. However, background noise in towns and cities (from cars, construction, crowds of people and so on) is higher, so aircraft noise may be less noticeable.

If we continue to avoid flying over built-up areas, this will reduce the number of people who are overflown. However, this may lead to aircraft flying over areas where the level of background noise may be lower, so aircraft noise may be more noticeable.

When we design our flight paths, which option below do you prefer and why?
Remember you can also use the box below to give us a different view that reflects your specific priorities.
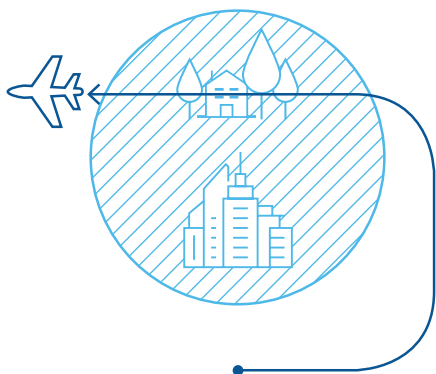
Option 1 ☐	Option 2 ☐
Avoid flying over built-up areas, which will affect fewer people but to a greater extent.	Avoid flying over villages and rural communities, which will affect more people but to a lesser extent.
Please use the box below to explain your preference and add anything you think we may have missed.	Please use the box below to explain your preference and add anything you think we may have missed.

Question 4

Balancing noise and emissions

We can now design flight paths so that aircraft fly more direct routes, shortening the distance to their destinations and reducing CO_2 emissions. It can also make journey times a little shorter.

Sometimes, aircraft fly a little further to avoid flying over local communities. Shortening these routes so they fly more directly might, in some instances, lead to aircraft flying over more local communities, which could lead to more people being affected by aircraft noise.
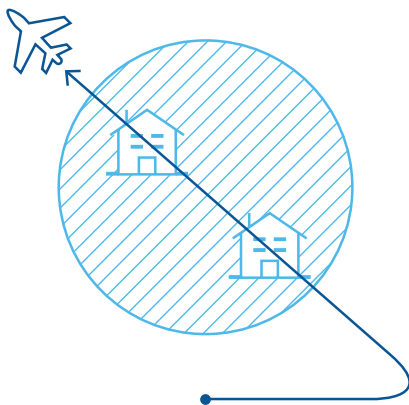
We need to find the right balance between having more direct flights (to reduce emissions and journey times) and keeping local communities' exposure to aircraft noise to a minimum.

When we design our flight paths, which option below do you prefer and why?
Remember you can also use the box below to give us a different view that reflects your specific priorities.
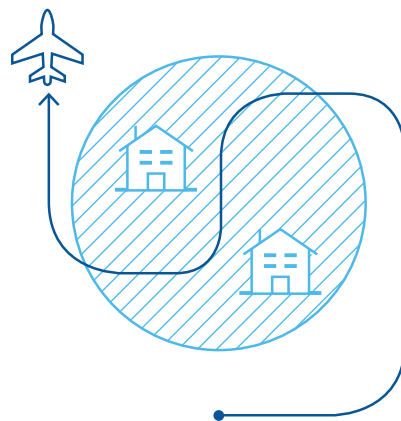
Option 1 ☐	Option 2 ☐
Fly the most direct routes possible to reduce emissions, even if this means flying over more people.	Avoid flying over communities so fewer people are affected by aircraft noise, even if this means higher CO_2 emissions.
Please use the box below to explain your preference and add anything you think we may have missed.	Please use the box below to explain your preference and add anything you think we may have missed.

Step 1B questions and how to respond

Question 5

Taking account of current arrangements and agreements

We already operate in a way that limits the effect of aircraft noise. This includes the early south turn before Knutsford only being used by quieter aircraft, the westerly route that spreads aircraft over a wide area, and departing aircraft avoiding flying over Knutsford if possible.

Some of these ways of operating are voluntary, some have been agreed locally, and others have been written into legal agreements.

As we design future flight paths, we need to consider whether to continue operating as we have previously agreed or whether we should design entirely new routes to achieve the best possible outcomes (taking account of factors such as noise, emissions and the airport running efficiently).

When we design our flight paths, which option below do you prefer and why?
Remember you can also use the box below to give us a different view that reflects your specific priorities.
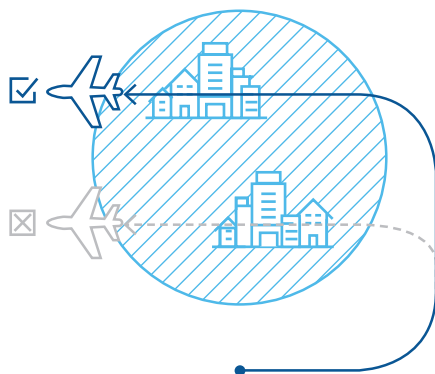
Option 1 ☐	Option 2 ☐
Continue with current arrangements and ways of operating.	Design new routes to achieve the best possible outcomes for reducing noise and emissions while increasing the efficiency of the airport.

Please use the box below to explain your preference and add anything you think we may have missed.

Please use the box below to explain your preference and add anything you think we may have missed.

Other airspace users

While we control airspace around our airport, not all flights in our airspace are to and from the airport. We need to make our airspace available for other users, including private aircraft, helicopters, military flights, air ambulance, gliders, microlight aircraft, balloon flights and drones.

How we design our flight paths could allow other users to operate freely or might lead to them making lengthy detours and experiencing delays.

As we design future flight paths, we need to consider whether to:
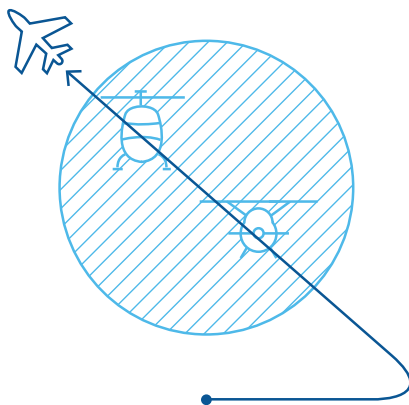
- prioritise the best possible routes for aircraft flying to and from the airport, to minimise noise, emissions and inefficiencies in operations at our airport; or

- introduce flight paths that mean other airspace users are not significantly disadvantaged by changes, even if this means aircraft using the airport cause more noise or emissions.

When we design our flight paths, which option below do you prefer and why?
Remember you can also use the box below to give us a different view that reflects your specific priorities.

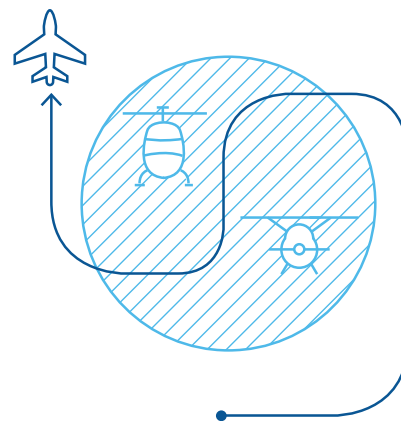| Option 1	Option 2
Design the best possible routes (for minimising noise, emissions and inefficiencies in operations at our airport) for aircraft flying to and from the airport, even if this disadvantages other airspace users.	Design routes that minimise the effect operations at the airport have on other airspace users, even if this means increased noise and emissions.
Please use the box below to explain your preference and add anything you think we may have missed.	Please use the box below to explain your preference and add anything you think we may have missed.

Step 1B questions and how to respond

Aircraft types

Some flight paths would require aircraft to have the very latest navigation equipment. If we design flight paths that require aircraft to use the latest equipment, it could make it difficult for older or smaller aircraft to be used. This could reduce the frequency of some flights and potentially lead to delays. It may also result in aircraft without up-to-date technology having to fly slightly different flight paths, or flying less accurately, which could lead to them flying over local communities which are not currently flown over.

If we design flight paths that are suitable for all aircraft types, we may not be able to take full advantage of some of the latest equipment and techniques. This might mean, for example, that we can't minimise aircraft noise as effectively or that the airport operates less efficiently.
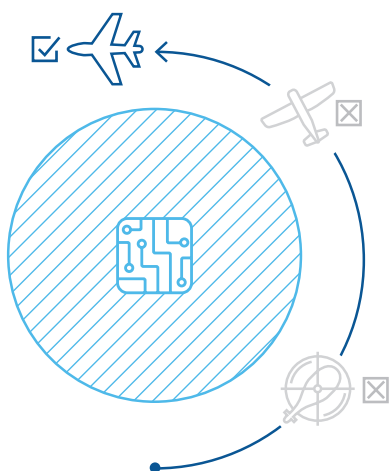
The number of older and smaller aircraft affected by any change we make is likely to reduce over time. In the meantime, we need to consider how and where these aircraft currently operate.

When we design our flight paths, which option below do you prefer and why?
Remember you can also use the box below to give us a different view that reflects your specific priorities.
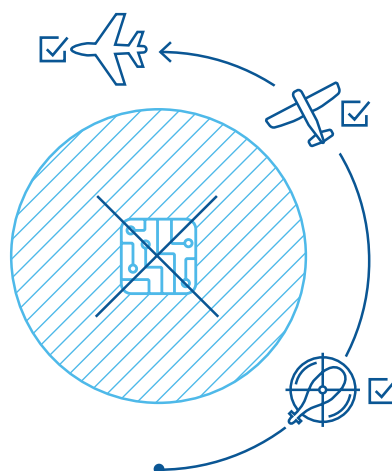
Option 1 ☐	Option 2 ☐
Take advantage of the latest technology and techniques, even if this makes flight paths more difficult for older and smaller aircraft.	Make flight paths suitable for all aircraft, even if this means new technologies and techniques cannot be used.
Please use the box below to explain your preference and add anything you think we may have missed.	Please use the box below to explain your preference and add anything you think we may have missed.

Question 8

Multiple flight paths in the same area

For safety reasons, aircraft must take off and land into the wind. This allows departing aircraft to climb faster and landing aircraft to stop more quickly.

The direction of take-off and landing changes when the direction of the wind changes. For this reason, we have two sets of flight paths, one for when the wind is from the west (as is most often the case) and one for when the wind is from the east.

From each runway there are alternative arrival and departure routes. This means that we have several flight paths, some of which overlap. If we design each new flight path on its own, we can make sure each route is the best it can be, so reducing noise and emissions, and allowing the airport to operate as efficiently as possible. However, designing each flight path individually could mean that, when we put them all together, some areas are overflown by several routes.

When we design future flight paths, we need to find the best overall outcome and consider whether we should prioritise:
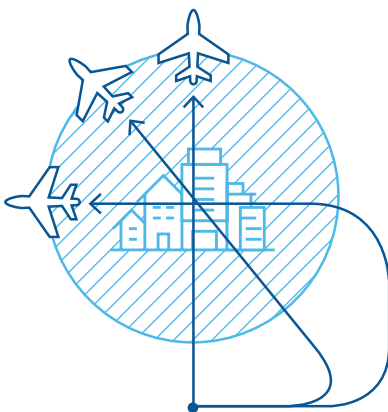
- the efficiency of individual routes; or
- avoiding areas being overflown by several routes.

When we design our flight paths, which option below do you prefer and why?
Remember you can also use the box below to give us a different view that reflects your specific priorities.
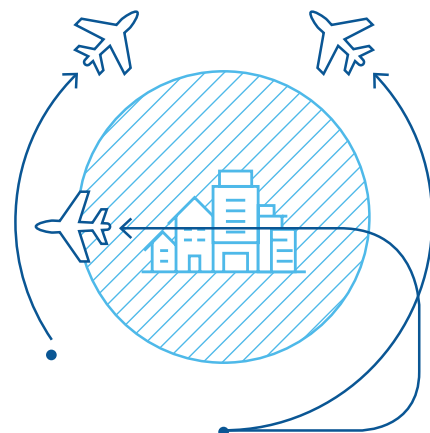
Option 1 ☐	Option 2 ☐
Make sure each route can achieve the best balance between reducing noise and keeping emissions low, even if this means some areas are overflown by several routes.	Avoid having areas overflown by several routes, even if this limits our ability to minimise noise and emissions.

Please use the box below to explain your preference and add anything you think we may have missed.

Please use the box below to explain your preference and add anything you think we may have missed.

Step 1B questions and how to respond

Areas that we should avoid flying over

The flight paths we design will control aircraft flying at altitudes of up to 7,000 feet. The areas that might be overflown up to this altitude are shown in the diagram on page 13.

When designing flight paths, we need to consider areas that will be overflown, particularly at lower altitudes. It may be best to avoid some areas, such as parks, historic properties and nature reserves, because they are particularly tranquil or spaces where people go to relax. Certain buildings, such as schools, care homes and hospitals, can be particularly affected by noise.

It may also be inappropriate to fly over some areas, for example if they present a danger to aircraft because they are used for military training or have a large number of birds.

When we design our flight paths, are there any areas or buildings that you think we should avoid flying over?
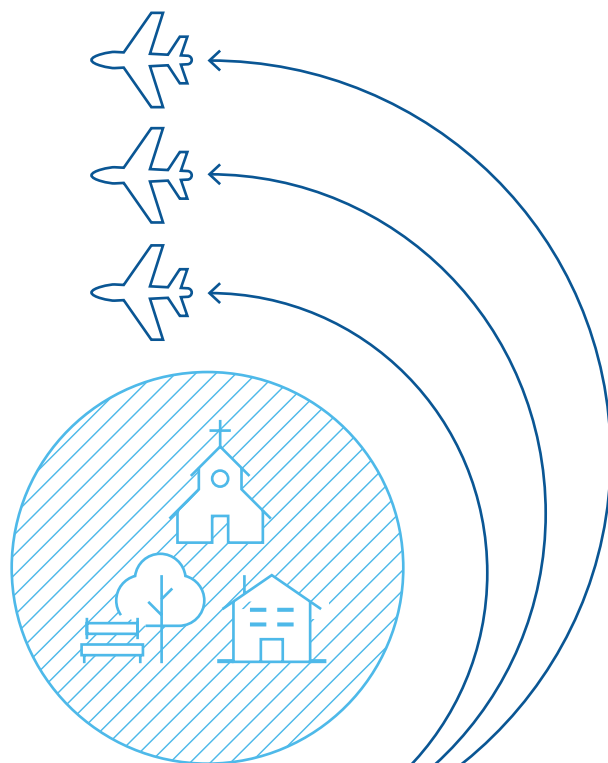
Yes ☐

No ☐

If yes, please give the name of the building or area and where it is, explain why and when we should avoid it, and tell us the potential consequences of flying over the particular site.

_____

_____

_____

_____

Meeting requirements

As we design our new flight paths, there will be certain national and international safety, regulatory, legal and operational requirements that we must meet.

1. **Safety** – all new flight paths must meet all required safety standards.

2. **Industry standards and regulations** – industry standards (usually set internationally) or regulations apply to some aspects of how aircraft fly. All new flight paths must meet these legal obligations.

3. **Consistent with the national system of aircraft routes** – our new flight paths will become part of a new national network of routes, so they will need to take account of flights to and from other airports. As our flight paths will only be designed to 7,000 feet, they will also need to join up with national aircraft routes at higher altitudes.

4. **Maintaining and improving our airport** – Manchester Airport is a busy international airport which continues to grow to provide the services our customers need. In line with the Government's policy of 'making best use' of our nation's airports, our new flight paths should allow us to provide the services that we offer today and meet any future demand from customers (within the limits set by any planning conditions).

5. **Keeping to government policy** – UK airspace is amongst the busiest in the world. To tackle the issue of congestion, the Government instructed the CAA to develop an Airspace Modernisation Strategy (AMS (CAP1711)), which was published in December 2018. Our design principles must take account of government policy on aviation, and reflect the requirements of the Airspace Modernisation Strategy.

Do you agree that any design for future flight paths must meet the requirements shown opposite?

Yes ☐   No ☐

If no, please explain why.

_____
_____
_____
_____
_____
_____

Do you think there are any other requirements that our new flight paths must meet?

Yes ☐   No ☐

We also ask you to explain your views and add anything you think we should consider.

_____
_____
_____
_____

Other things we should consider

In our questions we set out the important factors that we think we will need to consider when designing new flight paths.

As well as considering your answers to those important questions, we want to know if there are other things you think we should be taking account of.

Is there anything else we need to consider, or do you have any suggestions? If yes, please give details below.

_____
_____
_____
_____

5

Frequently asked questions

5 Frequently asked questions

Q **What are you doing?**

Along with all airports in the north of England, we are taking part in a process of modernising the way we use the airspace around the airport. This is part of a national programme of modernising airspace, which is being overseen by the CAA on behalf of the Government. At this stage of the process, we are gathering views on the principles we should follow when designing any changes to flight paths aircraft follow when flying into and out of the airport.

Q **Will this mean more flights to and from Manchester Airport?**

The modernisation of airspace won't in itself lead to more flights to and from Manchester Airport, in the same way that building a new motorway doesn't automatically mean there are more vehicles on the road.

It is UK Government policy to make the best use of existing facilities to meet the country's future aviation needs, while balancing the needs of communities and the environment.

Manchester Airport has two runways, which are not currently used as much as they could be. We are also investing more than £1 billion in our terminals and airfield to make sure we can accommodate increased passenger numbers in the future, to make full use of our runways. This is not only in line with current Government policy, it also maximises the social and economic benefits the airport brings to the region. Manchester Airport currently contributes £5.1 billion to the North West's economy each year, and supports 48,000 jobs in the region, with more than 24,000 directly employed on-site at the airport.

Modernising airspace is just one of the measures that will enable Manchester Airport to continue to grow and meet future UK-wide demand in a sustainable way.

Q **Will this mean there are going to be more flights over my house or place of work?**

At this point in time, we are only asking people and organisations about the general principles we should follow when developing new flight paths.

Once we have agreed these, they will inform the way in which we will approach the design process. The options we come up with will be consulted on, following the rules set out in CAP1616, and we will make sure you have all the information you need to decide how you want to respond to the consultation.

Q **Why are you doing this now?**

The Government wants to have completed the modernisation of UK airspace by 2022. To achieve this deadline, we need to start work now, by agreeing the principles we will follow as we develop our plans. This is also in line with the timetable being followed by other airports who are going through the same process.

Q **What does this mean for local communities?**

Modernising airspace and making better use of new technology can change the effects flights have on those living near the airport. As part of this stage of the process, we are asking people about the principles we should follow when developing flight paths.

Some of these principles are relevant to local communities (for example, whether it's best to concentrate flight paths over one area or spread them out, or whether there are specific areas flight paths should not go over). We will follow consultation rules set out in CAP1616, and fully consult the public in later stages of the process.

Q **What about night flights?**

We have a Night Noise Policy which is part of our Environment Action Plan. In 2018 we consulted people on this plan and it was approved by the Secretary of State for the Environment.

Our Noise Action Plan restricts the number of night flights and introduces restrictions on noise at night. You can read more about this at manchesterairport.co.uk/livingneartheairport.

Q **What does this mean for passengers?**

How airspace is managed can affect whether flights arrive and depart on time. By making better use of technology – both on aircraft and on the ground – the Government expects flights to become more reliable, there to be less need for 'stacking' (aircraft to circle) around busy airports, and unnecessary delays, carbon emissions and noise to be reduced.

Q **Might I be affected by flights from other airports?**

Most other UK airports are consulting on the future of their airspace and will be following the guidance in CAP1616. If they have consulted on changes, they will have a page on the CAA website and may have already contacted you or your community representatives. You can view all current proposals at https://airspacechange.caa.co.uk.

Further information

"

Be part of the conversation

manchesterairport.co.uk/futureairspace

The following documents provide detailed background information to the Government's national programme of airspace modernisation.

All UK airports' proposals for changes to airspace, together with supporting documents, can be found on the CAA's airspace change website https://airspacechange.caa.co.uk.

The CAA's CAP1616 document sets out the regulatory process for changes to airspace design. See the website at caa.co.uk/cap1616.

The CAA's full Airspace Modernisation Strategy can be found here caa.co.uk/cap1711.

A large-text, black-and-white version of this document is available at manchesterairport.co.uk/futureairspace.

Glossary

Term	Definition
ACOG	Airspace Change Organisation Group. A newly established body set up by the Government and the CAA to co-ordinate airspace-change projects across airports and upper airspace.
Airspace Modernisation Strategy	The Government's strategy and plan for the use of UK airspace, including the modernisation of airspace.
ATM	Air traffic movement.
CAA	Civil Aviation Authority, the aviation industry's regulator.
CAP1616	The CAA's guidance document which sets out the regulatory process which all proposals for airspace changes must follow.
Focus group	A small group of stakeholders brought together to discuss proposals and offer feedback.
GDPR	The General Data Protection Regulation.
NATS	UK's air traffic navigation service provider, previously known as the National Air Traffic Services.

"

Be part of the
conversation

manchesterairport.co.uk/futureairspace

Crystal Mark 23173
Clarity approved by
Plain English Campaign

Co-financed by the Connecting Europe
Facility of the European Union

Appendix 1 – Part B

# Focus Groups Phase 1 Presentation Slides

Manchester Airport area

The Government requires us to modernise the way airspace is managed around the airport in areas where aircraft fly at up to 7,000 feet.

To make sure we can gather the views of stakeholders, we have identified the area any change may affect.

The area in red on the map below shows the area within which aircraft landing at and taking off from the airport will fly below 7,000 feet.

This map will guide our approach to engaging with interested parties at step 1B, but may get smaller as we refine our proposals through the later stages of the process.

Manchester Airport
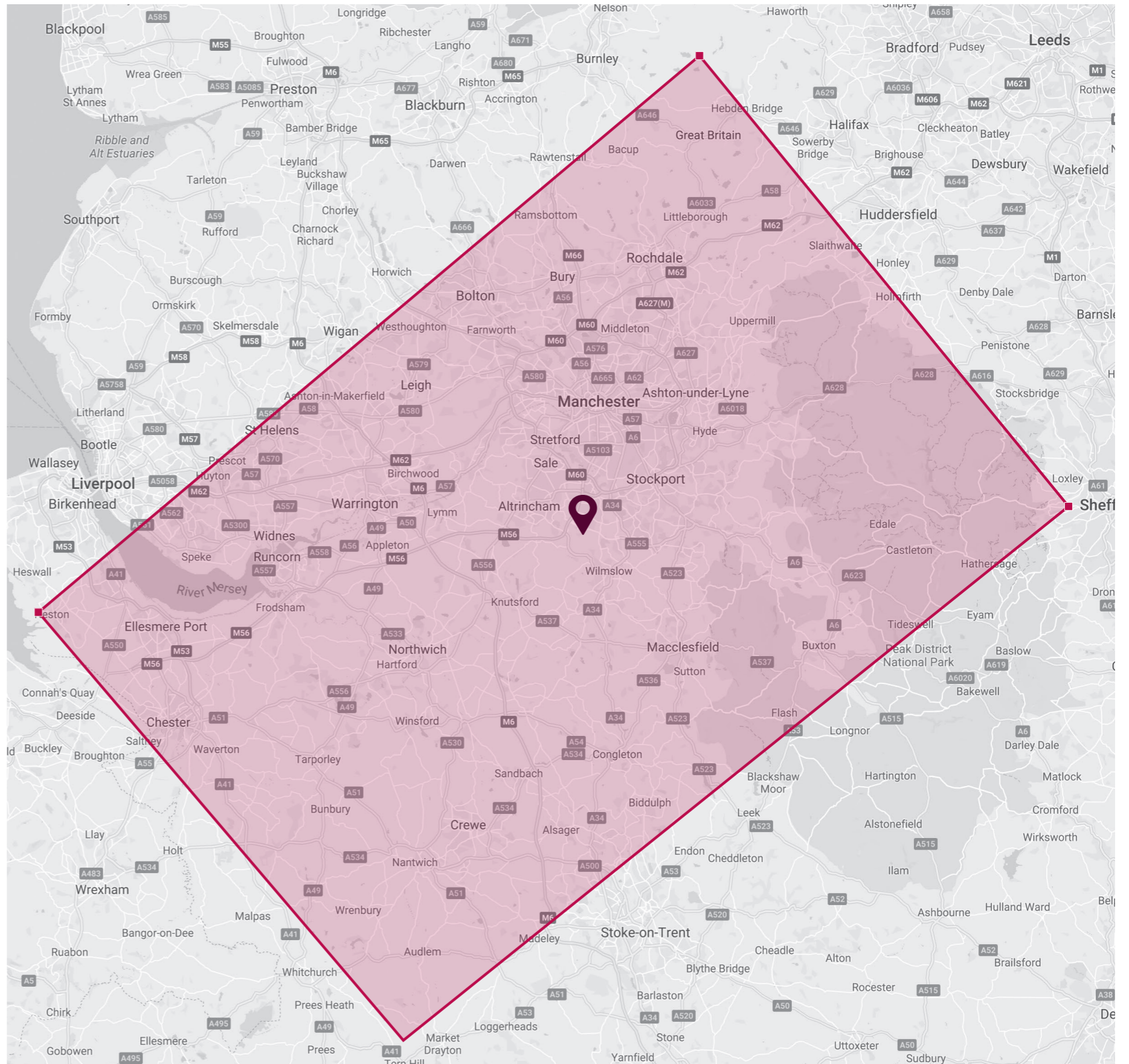
BACKGROUND AND CONTEXT

Presenter:
Link to AOA video, play chapter 2 only

https://www.aoa.org.uk/airportmatters2017/

MAG
Manchester
Airport

Question 1

Avoid change or fly over new areas

Our flight paths were introduced after taking account of local views, and many have stayed the same for years.

Some people have chosen to live close to or under flight paths, perhaps because they are less affected by or concerned about aircraft noise. On the other hand, some people may have chosen to live in areas away from flight paths as they don't want aircraft flying over or close to their homes.

As we design our future flight paths, we need to consider whether to:

- prioritise keeping changes to a minimum to avoid flying over new areas (unless there is a strong reason to do so); or

- start with a 'clean sheet' and design new routes that might reduce the effect of aircraft noise, cut emissions and make better use of modern technology, but might fly over new areas as a result.

Please indicate your preference below

When we design our flight paths, which option below do you prefer and why?
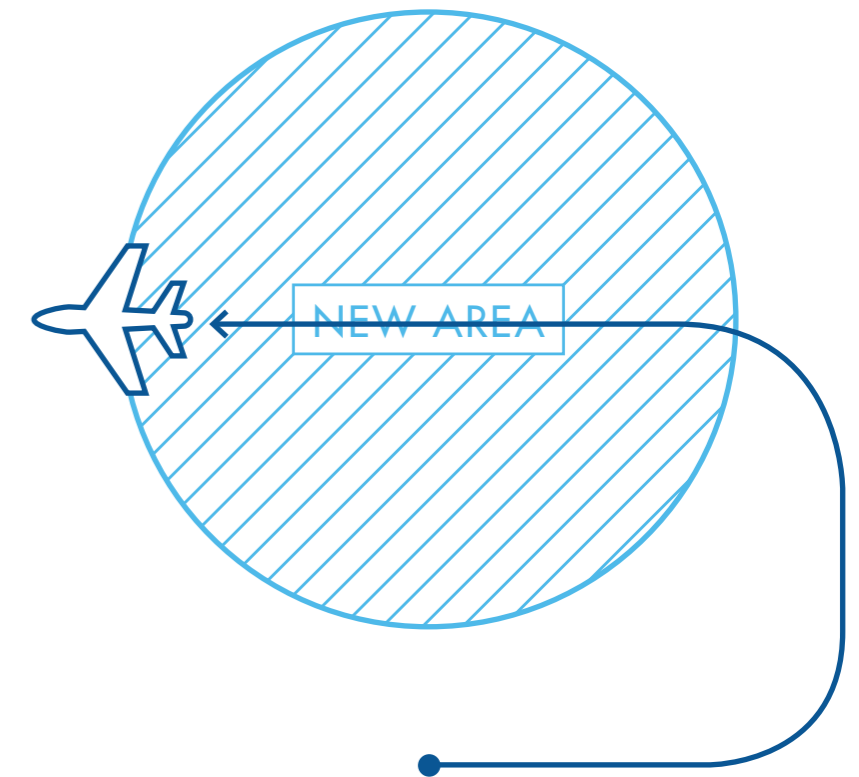
Option 1

Avoid aircraft flying over new areas, unless there is a strong case to do so.
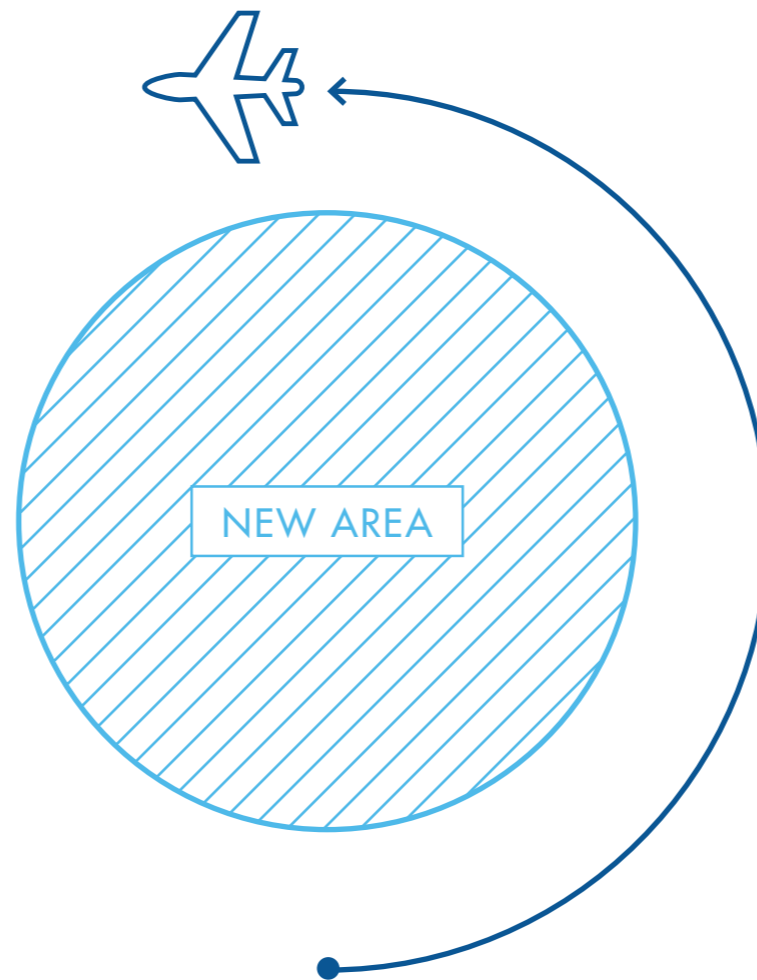
NEW AREA

Option 2

Design the best possible routes (taking account of noise, emissions, efficiency and other relevant factors), even if this means flying over new areas.

NEW AREA

Question 2

Concentrating or spreading out flight paths

Modern aircraft can use satellite guidance to allow them to fly more accurately. This means flight paths can now concentrate aircraft so fewer people are overflown and affected by aircraft noise. However, the people who are overflown will be affected more than they previously were.

As an alternative, we can design flight paths that spread aircraft out over a wider area, perhaps using several alternative routes, and use varying flight paths on different days of the week or during different times of day to provide periods when there is no aircraft noise. If we take this approach, we will need to decide how long the periods of 'no aircraft noise' last to create significant benefit.

Please indicate your preference below

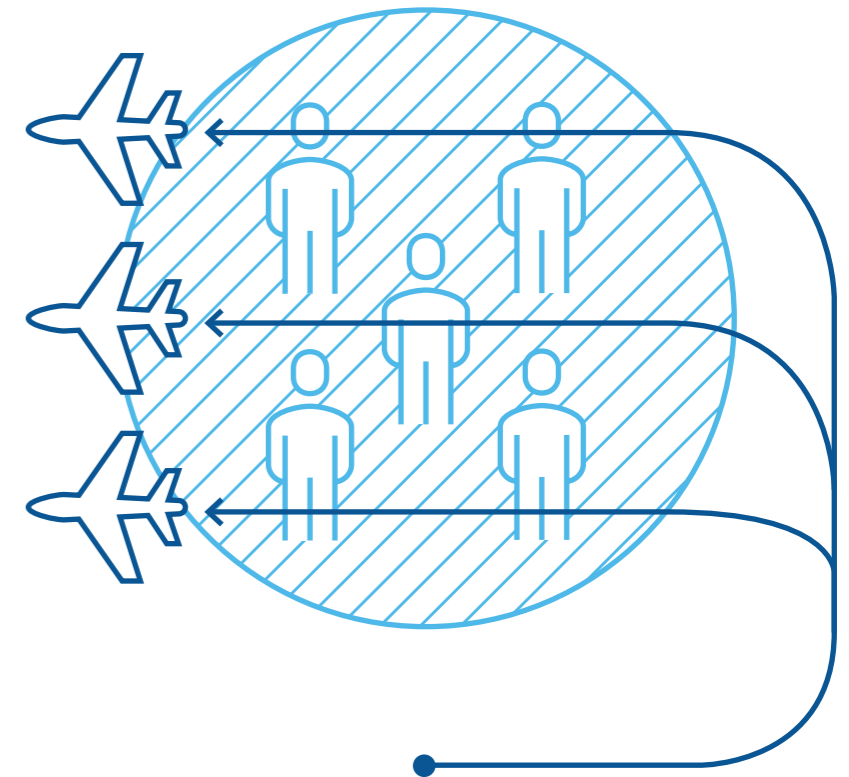**When we design our flight paths, which option below do you prefer and why?**

Option 1

Concentrate flight paths, which will affect fewer people but to a greater extent.
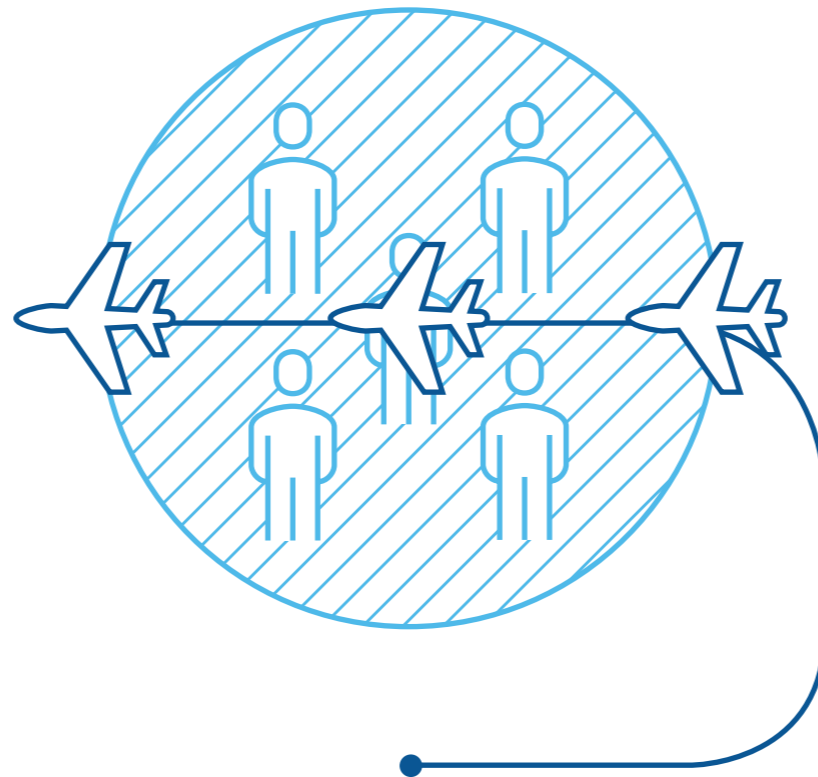
Option 2

Spread out flight paths, which will affect more people but to a lesser extent.

Question 3

Flying over built-up areas

When designing flight paths, we need to consider the local communities that will be flown over and affected by aircraft noise. Our current routes avoid flying over built-up areas, where possible, as this was the advice from the Government at the time the flight paths were designed.

If we designed flight paths that flew over built-up areas, more people would be overflown. However, background noise in towns and cities (from cars, construction, crowds of people and so on) is higher, so aircraft noise may be less noticeable.

If we continue to avoid flying over built-up areas, this will reduce the number of people who are overflown. However, this may lead to aircraft flying over areas where the level of background noise may be lower, so aircraft noise may be more noticeable.

Please indicate your preference below

When we design our flight paths, which option below do you prefer and why?

Option 1

Avoid flying over built-up areas, which will affect fewer people but to a greater extent.
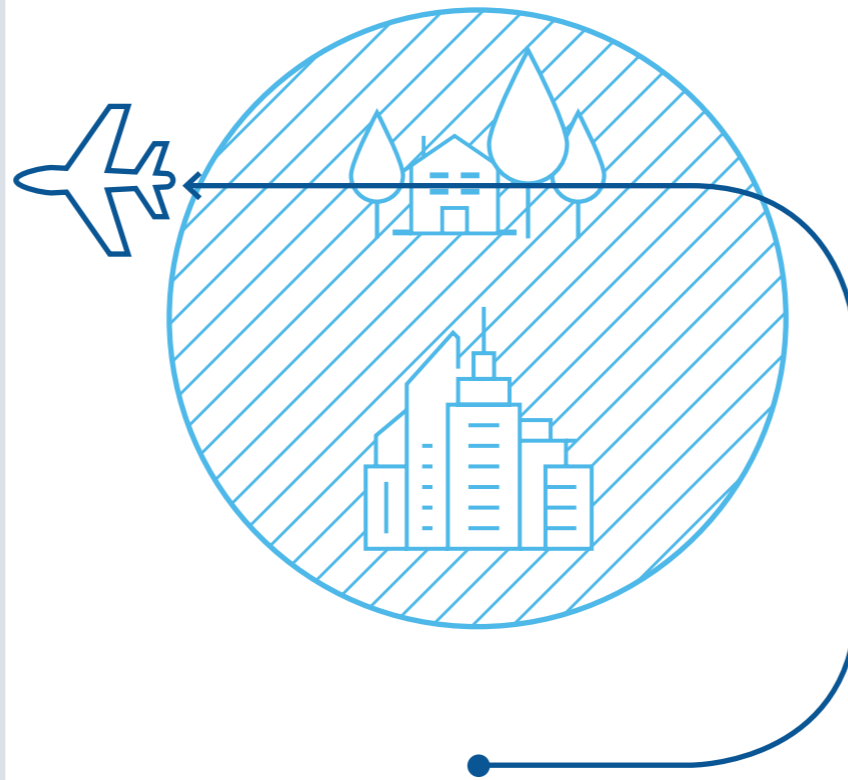
Option 2

Avoid flying over villages and rural communities, which will affect more people but to a lesser extent.

Question 4

Balancing noise and emissions

We can now design flight paths so that aircraft fly more direct routes, shortening the distance to their destinations and reducing CO2 emissions. It can also make journey times a little shorter.

Sometimes, aircraft fly a little further to avoid flying over local communities. Shortening these routes so they fly more directly might, in some instances, lead to aircraft flying over more local communities, which could lead to more people being affected by aircraft noise.

We need to find the right balance between having more direct flights (to reduce emissions and journey times) and keeping local communities' exposure to aircraft noise to a minimum.

Please indicate your preference below

When we design our flight paths, which option below do you prefer and why?

Option 1

Fly the most direct routes possible to reduce emissions, even if this means flying over more people.

Option 2

Avoid flying over communities so fewer people are affected by aircraft noise, even if this means higher CO_2 emissions.

Taking account of current arrangements and agreements

We already operate in a way that limits the effect of aircraft noise. This includes the early south turn before Knutsford only being used by quieter aircraft, the westerly route that spreads aircraft over a wide area, and departing aircraft avoiding flying over Knutsford if possible.
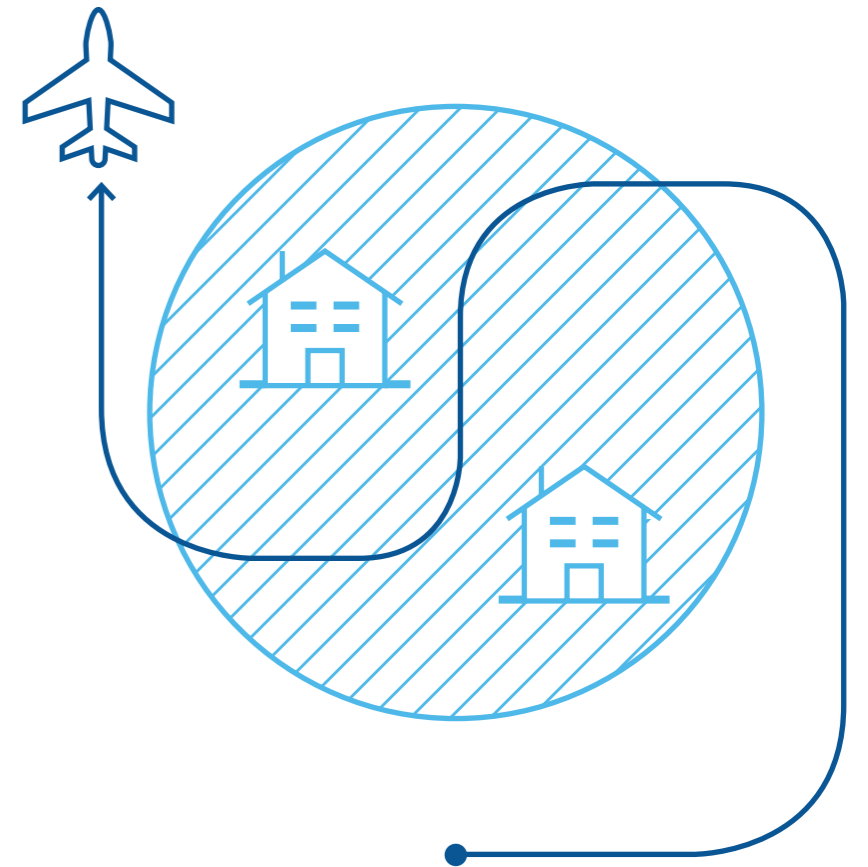
Some of these ways of operating are voluntary, some have been agreed locally, and others have been written into legal agreements.

As we design future flight paths, we need to consider whether to continue operating as we have previously agreed or whether we should design entirely new routes to achieve the best possible outcomes (taking account of factors such as noise, emissions and the airport running efficiently).

Please indicate your preference below

When we design our flight paths, which option below do you prefer and why?

Option 1

Continue with current arrangements and ways of operating.
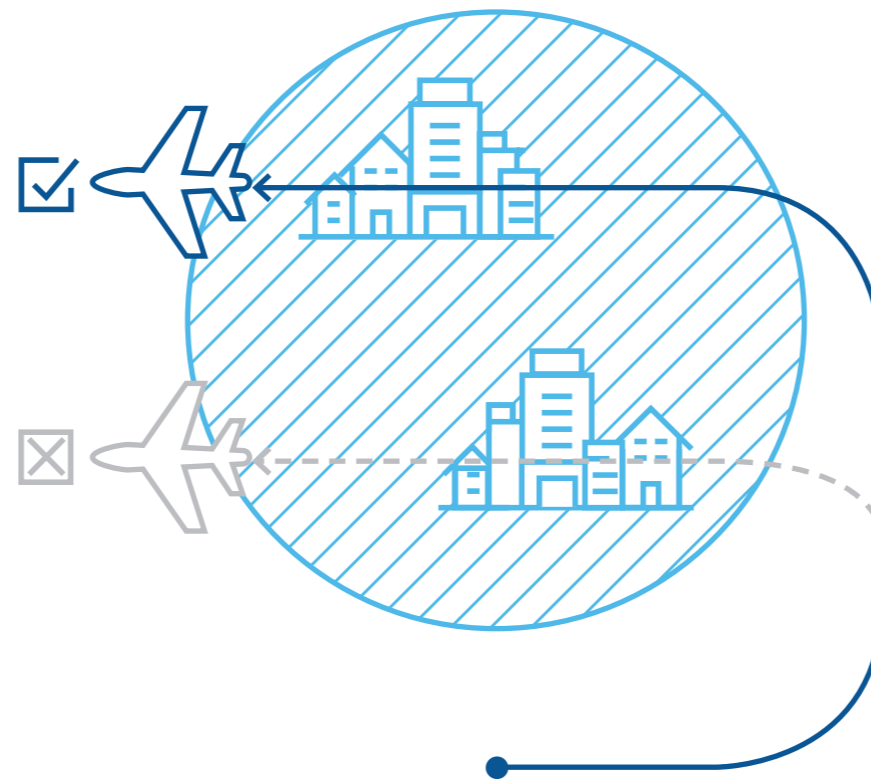
Option 2

Design new routes to achieve the best possible outcomes for reducing noise and emissions while increasing the efficiency of the airport.

Question 6

Other airspace users

While we control airspace around our airport, not all flights in our airspace are to and from the airport. We need to make our airspace available for other users, including private aircraft, helicopters, military flights, air ambulance, gliders, microlight aircraft, balloon flights and drones.

How we design our flight paths could allow other users to operate freely or might lead to them making lengthy detours and experiencing delays.
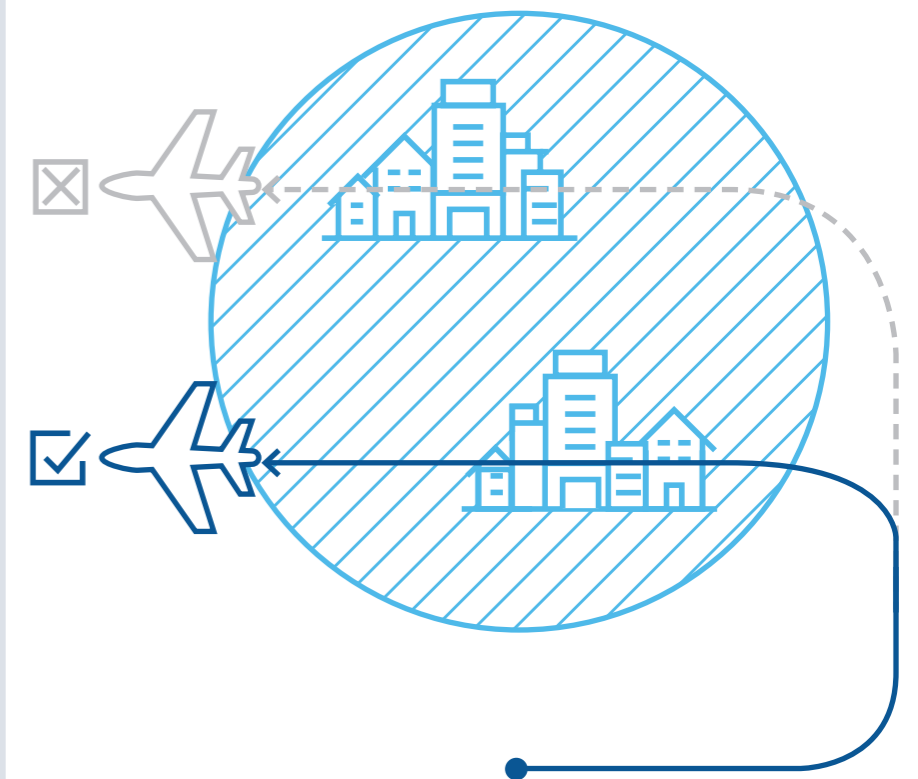
As we design future flight paths, we need to consider whether to:

- prioritise the best possible routes for aircraft flying to and from the airport, to minimise noise, emissions and inefficiencies in operations at our airport; or

- introduce flight paths that mean other airspace users are not significantly disadvantaged by changes, even if this means aircraft using the airport cause more noise or emissions.

Please indicate your preference below

When we design our flight paths, which option below do you prefer and why?

Option 1

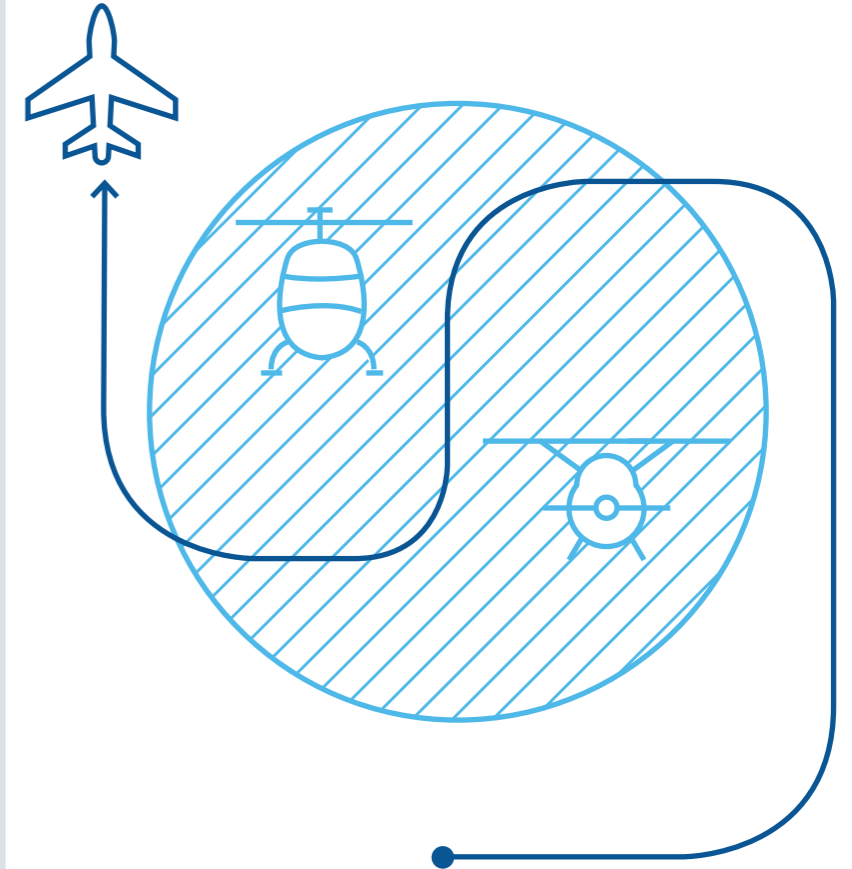Design the best possible routes (for minimising noise, emissions and inefficiencies in operations at our airport) for aircraft flying to and from the airport, even if this disadvantages other airspace users.
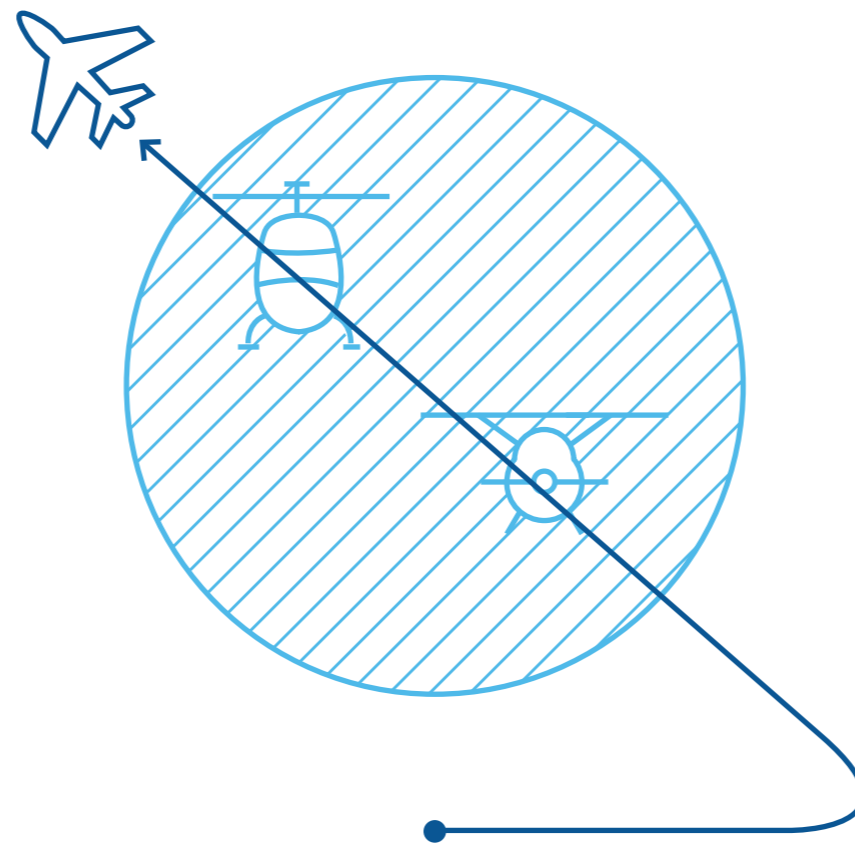
Option 2

Design routes that minimise the effect operations at the airport have on other airspace users, even if this means increased noise and emissions.

Question 7

Aircraft types

Some flight paths would require aircraft to have the very latest navigation equipment. If we design flight paths that require aircraft to use the latest equipment, it could make it difficult for older or smaller aircraft to be used. This could reduce the frequency of some flights and potentially lead to delays. It may also result in aircraft without up-to-date technology having to fly slightly different flight paths, or flying less accurately, which could lead to them flying over local communities which are not currently flown over.

If we design flight paths that are suitable for all aircraft types, we may not be able to take full advantage of some of the latest equipment and techniques. This might mean, for example, that we can't minimise aircraft noise as effectively or that the airport operates less efficiently.

The number of older and smaller aircraft affected by any change we make is likely to reduce over time. In the meantime, we need to consider how and where these aircraft currently operate.

Please indicate your preference below

When we design our flight paths, which option below do you prefer and why?

Option 1

Take advantage of the latest technology and techniques, even if this makes flight paths more difficult for older and smaller aircraft.
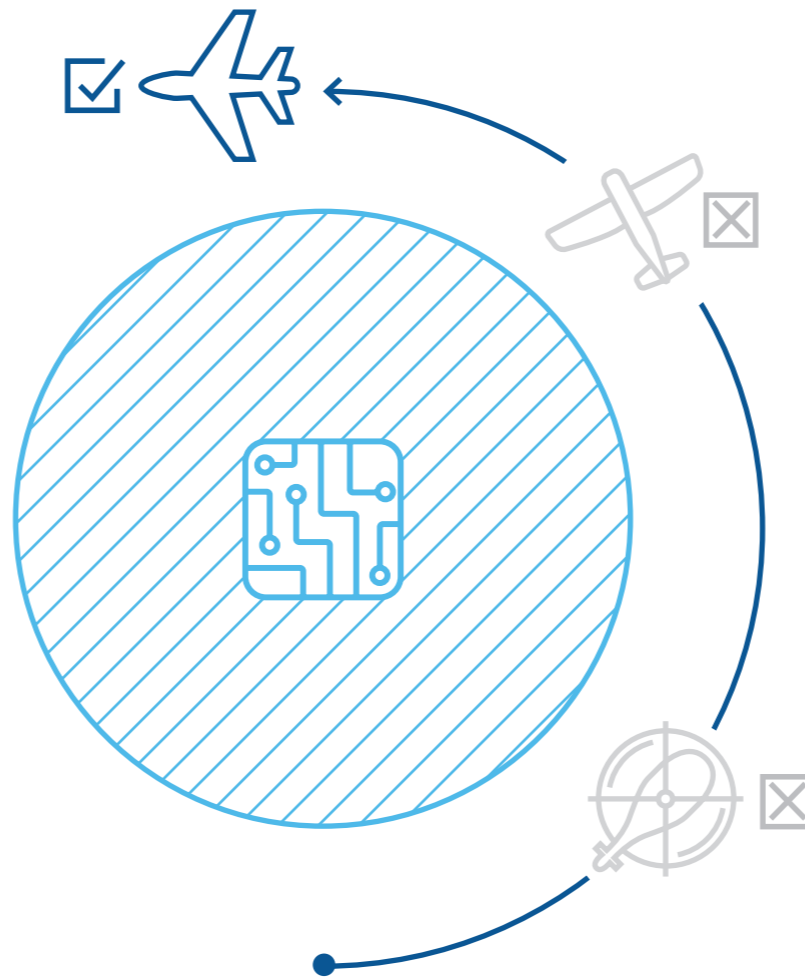
Option 2

Make flight paths suitable for all aircraft, even if this means new technologies and techniques cannot be used.

Question 8

Multiple flight paths in the same area

For safety reasons, aircraft must take off and land into the wind. This allows departing aircraft to climb faster and landing aircraft to stop more quickly.

The direction of take-off and landing changes when the direction of the wind changes. For this reason, we have two sets of flight paths, one for when the wind is from the west (as is most often the case) and one for when the wind is from the east.

From each runway there are alternative arrival and departure routes. This means that we have several flight paths, some of which overlap. If we design each new flight path on its own, we can make sure each route is the best it can be, so reducing noise and emissions, and allowing the airport to operate as efficiently as possible. However, designing each flight path individually could mean that, when we put them all together, some areas are overflown by several routes.
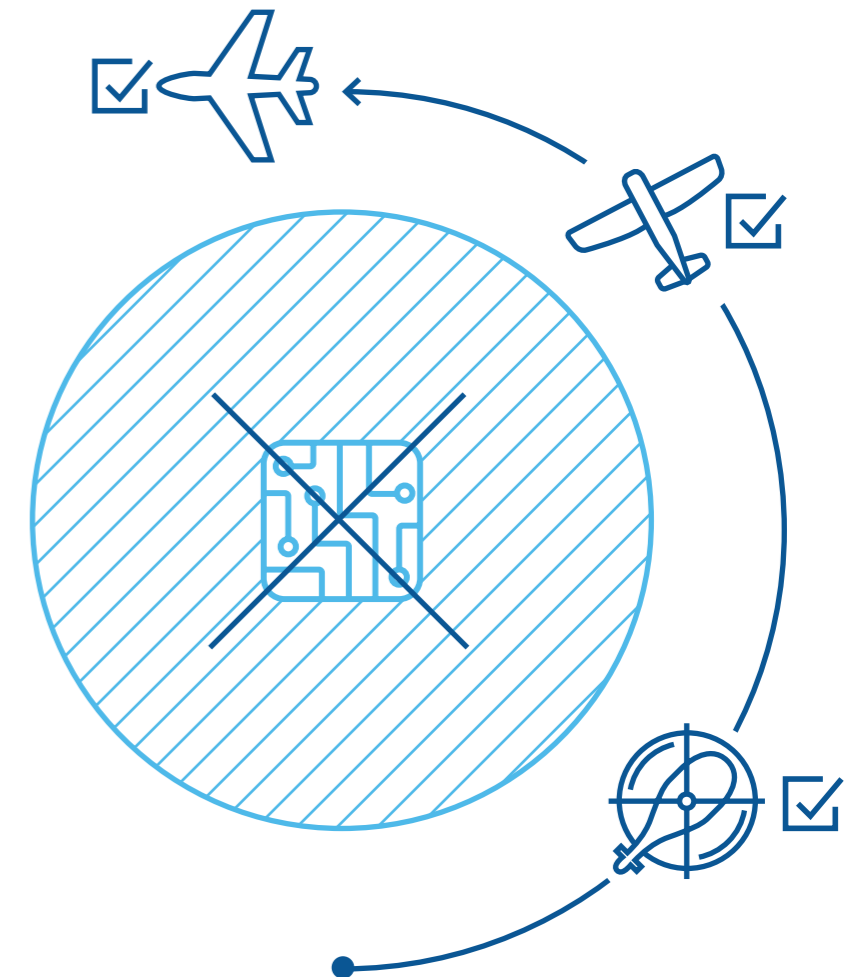
When we design future flight paths, we need to find the best overall outcome and consider whether we should prioritise:

- the efficiency of individual routes; or
- avoiding areas being overflown by several routes.

Please indicate your preference below

When we design our flight paths, which option below do you prefer and why?

Option 1

Make sure each route can achieve the best balance between reducing noise and keeping emissions low, even if this means some areas are overflown by several routes.
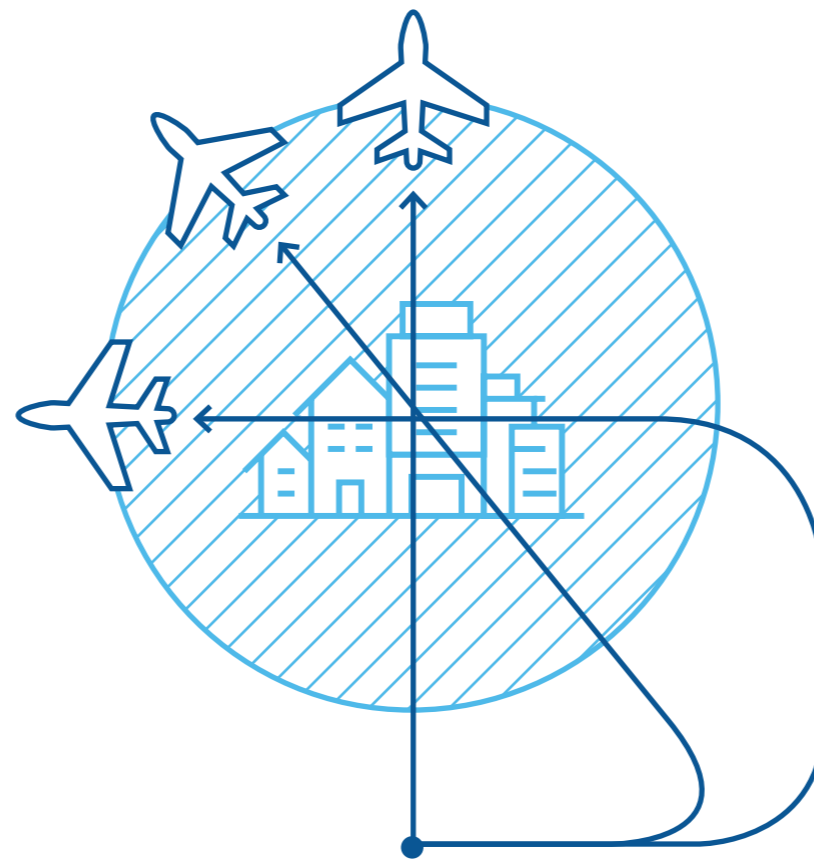
Option 2

Avoid having areas overflown by several routes, even if this limits our ability to minimise noise and emissions.
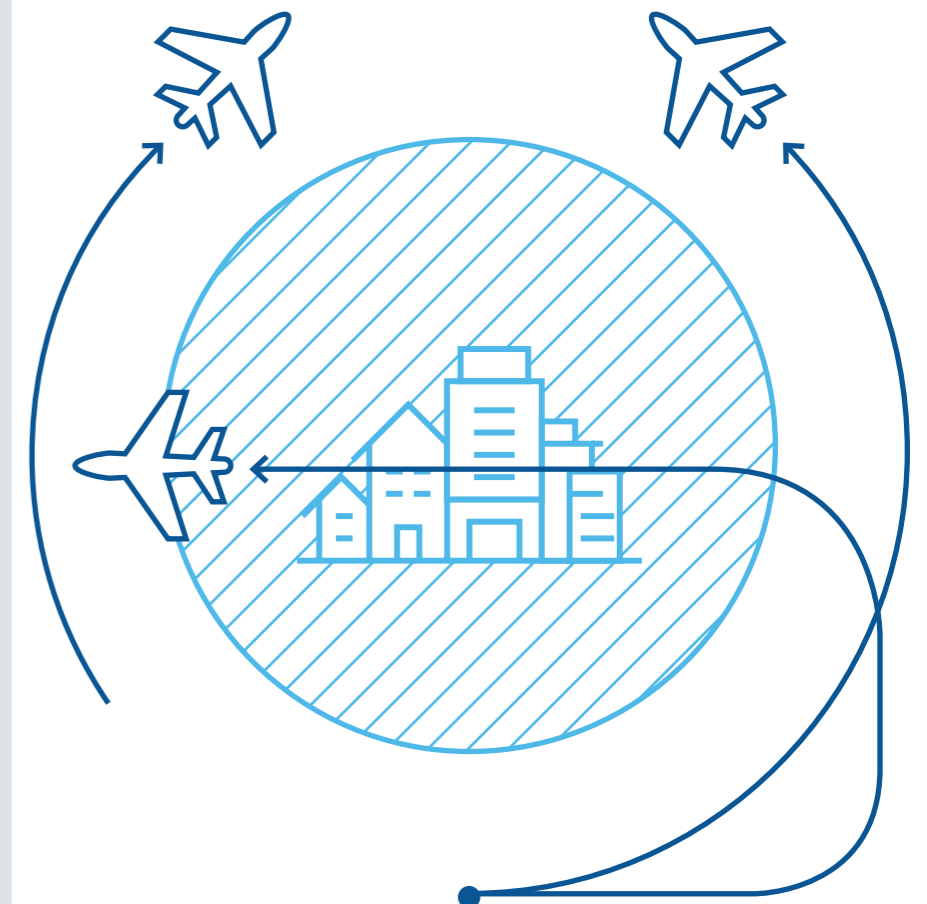
Question 9

Areas that we should avoid flying over

The flight paths we design will control aircraft flying at altitudes of up to 7,000 feet. The areas that might be overflown up to this altitude are shown on the Manchester Airport area diagram.

When designing flight paths, we need to consider areas that will be overflown, particularly at lower altitudes. It may be best to avoid some areas, such as parks, historic properties and nature reserves, because they are particularly tranquil or spaces where people go to relax. Certain buildings, such as schools, care homes and hospitals, can be particularly affected by noise.

It may also be inappropriate to fly over some areas, for example if they present a danger to aircraft because they are used for military training or have a large number of birds.

When we design our flight paths, are there any areas or buildings that you think we should avoid flying over?

If yes, please give the name of the building or area and where it is, explain why and when we should avoid it, and tell us the potential consequences of flying over the particular site.

Question 10

Meeting requirements

As we design our new flight paths, there will be certain national and international safety, regulatory, legal and operational requirements that we must meet.

1. **Safety** – all new flight paths must meet all required safety standards.

2. **Industry standards and regulations** – industry standards (usually set internationally) or regulations apply to some aspects of how aircraft fly. All new flight paths must meet these legal obligations.

3. **Consistent with the national system of aircraft routes** – our new flight paths will become part of a new national network of routes, so they will need to take account of flights to and from other airports. As our flight paths will only be designed to 7,000 feet, they will also need to join up with national aircraft routes at higher altitudes.

4. **Maintaining and improving our airport** – Manchester Airport is a busy international airport which continues to grow to provide the services our customers need. In line with the Government's policy of 'making best use' of our nation's airports, our new flight paths should allow us to provide the services that we offer today and meet any future demand from customers (within the limits set by any planning conditions).

5. **Keeping to government policy** – UK airspace is amongst the busiest in the world. To tackle the issue of congestion, the Government instructed the CAA to develop an Airspace Modernisation Strategy (AMS (CAP1711)), which was published in December 2018. Our design principles must take account of government policy on aviation, and reflect the requirements of the Airspace Modernisation Strategy.

Do you agree that any design for future flight paths must meet the requirements shown opposite?

If no, please explain why.

Do you think there are any other requirements that our new flight paths must meet?

We also ask you to add anything you think we should consider.

Question 11

Other things we should consider

In our questions we set out the important factors that we think we will need to consider when designing new flight paths.

As well as considering your answers to those important questions, we want to know if there are other things you think we should be taking account of.

Is there anything else we need to consider, or do you have any suggestions?

Appendix 1 – Part C

Focus Groups Phase 2 Presentation Slides

MANCHESTER AIRPORT WORKSHOP

THE FUTURE OF AIRSPACE
OVERVIEW

What is the Future Airspace Programme?

- The Government is overseeing a nationwide programme that will bring together the Civil Aviation Authority (CAA), NATS (the UK's En-Route airspace provider), and all UK airports to work collectively to modernise the airspace above this country and make it more efficient. Existing UK airspace design is approaching the limit of its capacity and without a complete redesign of airspace above the UK, coupled with extensive redesign of airport airspace and procedures, the UK will see increasing passenger disruption, personal and commercial costs and unnecessary environmental impacts.

- Airspace – like much of the UK's transport infrastructure – was designed for a very different age – one where aircraft and navigation was much less sophisticated – but modernising it will bring significant benefits, including making journeys quicker, quieter and cleaner.

- NATS will have responsibility for redesigning the airspace above 7000 feet and Manchester Airport, along with other airports in the UK, will need to re-design departure and arrival routes and procedures below 7000 feet in coordination with their designs.

- The process that Manchester Airport (and others) have to follow is defined by the regulator, and airports have to follow it strictly. This means that the information available at each stage of the process is out of the airport's control. When Manchester Airport is able to provide more detail, it will do so, to enable people to properly feedback at later stages of the process.

THE FUTURE OF AIRSPACE
PROCESS

2019		2020	Late 2020 to early 2021	Mid-2021	Late 2021	Early 2022	2022 onwards
Stage 1 **Define**		Stage 2 Development and assessment	Stage 3 Consultation	Stage 4 Update and submission of proposals	Stage 5 Decision	Stage 6 Implementation	Stage 7 Post-implementation review
Step 1A We sent our Statement of Need to the CAA in March 2019.	**Step 1B** We will gather views on design principles over the summer and up to 6 October before sending them to the CAA for approval in late 2019.	Taking the design principles produced during stage 1 into account, we will develop and assess a series of options for changes to flight paths over the course of 2020. The options will be sent to the CAA after taking feedback from our stakeholders.	We will prepare to consult the public on these options later in 2020. Once we have approval from the CAA to proceed, a formal consultation will take place in late 2020 or early 2021.	Based on the outcome of the consultation, we will finalise our Airspace Change Proposal and send it to the CAA in mid-2021.	In late 2021 we expect the CAA's decision on whether to approve any airspace change.	If approved, any airspace change could come into force in March 2022.	The CAP1616 process gives the CAA and airports 12 months to review any change that has been made to airspace.

MAG
Manchester
Airport

All routes must be safe, and must comply with industry standards and regulations.

MAG
Manchester
Airport

THE FUTURE OF AIRSPACE
DESIGN PRINCIPLE 2

Any change must accord with the Civil Aviation Authority's (CAA) published Airspace Modernisation Strategy (CAP 1711) and any variation to it.
Any current or future plans associated with the airspace change must also allow connection to the wider UK En-Route network and be aligned with the Future Airspace Strategy Implementation for the North (FASI-N) programme and take into consideration the needs of neighbouring airports.

Manchester Airport's future airspace must make best use of the capacity of its existing runways, in line with government policy.

Design Principle 3

MAG
Manchester
Airport

Where practical, demonstrable noise and emissions benefits should be shared amongst residential areas. The use of dispersion and/or respite, especially at night, should be used to achieve this.

Design Principle 4

MAG Manchester Airport

Where there is a demonstrable opportunity to minimise, and where possible reduce, emissions by designing the most direct routes, this will be considered.

Design Principle 5

MAG
Manchester
Airport

Any changes should prioritise airport air traffic over other airspace users, except for emergency aircraft

Design Principle 6

Designs should minimise the impact of our operation on other airspace users through keeping Controlled Airspace (CAS) requirements to a minimum

Design Principle 7

MAG **Manchester** Airport

Airspace designs should be based on the latest aircraft navigational technology widely available

Design Principle 8

MAG
Manchester
Airport

Where practical, airspace designs should avoid flying over noise sensitive areas, such as historical attractions, tranquil or rural areas, sites of care or education.

Design Principle 9

MAG Manchester Airport

Designs should seek to minimise, and where possible, reduce, the effect of noise from flights upon people.

Design Principle 10

MAG Manchester Airport