

East Midlands Airport
Future Airspace programme



BE PART OF THE CONVERSATION

The future of airspace

August 2019

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share your views

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Managing Director,
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An invitation to share your views



It's a privilege to have such an engaged and collaborative local community who give us our licence to operate. I'm really excited to work closely with them as we design a modern airspace that works for everyone.





The airspace above the UK is some of the busiest in the world, with over 9,000 flights passing over our heads every day. These aircraft are full of holiday makers, business travellers and cargo, being sent around the world and driving international trade.

In a global and connected Britain, air travel has never been so important. However, the 'motorways in the sky' that we currently use to direct aircraft are old and, in some cases, out of date.

The Government has set the aviation industry a challenge; to modernise airspace across the whole of the UK, making it safer, more efficient and more sustainable. This approach to airspace modernisation covers all parts of the country and all sections of the sky.

For me and my team here at East Midlands Airport, that means we need to look at the airspace we control and identify opportunities for new ways of working. Our controlled airspace covers any aircraft arriving, departing or travelling over East Midlands Airport at altitudes of up to 10,500ft.

A national regulatory process, called CAP1616, has been established by our industry regulators (the CAA) for airports wishing to modernise their airspace. In total, it will take around two years to complete and will involve a series of different stages.

What makes this process really exciting for me as the Managing Director of the airport is that it is centred around you, our communities and stakeholders. We will be working with you over the next two years and

asking you to help us shape our future airspace, and the way in which we will operate it.

We're now at the first stage of our journey to modernising our airspace and this means it's your first opportunity to get involved in the process. Before moving any further, every airport needs to determine a set of design principles that will be used when plotting new aircraft routes to and from the airport. These principles will be the rules that will govern and shape the rest of the process.

This document explains more about the process we are going through, and the different ways you can get involved and share your views. There are a set of questions that we'd like you to consider and respond to, helping to create a clear and robust set of design principles to guide us over the next two years.

I'm delighted to invite you to share your views with us as we embark on this journey together and create a future airspace that works for everyone.

Karen Smart
Managing Director
East Midlands Airport

1

Introduction

What is airspace?

Airspace is the term used to describe the area from ground level all the way up to 66,000 feet. The UK's airspace is among the busiest in the world, with over 9,000 aircraft either passing through, landing or taking-off from airports every day.

There are many different users of airspace, including commercial airlines, private jets, helicopters, military aircraft, gliders and even hot-air balloons. East Midlands Airport directly manages airspace around the airport up to 10,500 feet. Above this, NATS are responsible for managing UK airspace, making sure it is safely co-ordinated with other airports nearby.

Why airspace is changing

The way airspace is managed in the UK hasn't really changed since commercial flights began in the 1950s. At the same time, there have been considerable advances in aircraft design and technology. These advancements can't always be fully utilised in the existing airspace and so the Government has asked the aviation industry to review UK airspace and make sure it is designed and managed in a more modern way. 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.

Our hope is that a more

East Midlands Airport

Up to
76,000
aircraft movements
every year.





There's a huge network of invisible motorways in the sky that air traffic controllers like me use to guide and navigate aircraft as they take-off or land at our airport. It's great that we're looking at these routes now to make sure we can operate in the most efficient, and environmentally friendly way."

Claudine Maurin,
Air Traffic Controller,
East Midlands Airport

modern airspace design will enable new ways of flying that increase efficiency, reduce delays, make customers' journeys more reliable, reduce the effect flying has on the environment and communities, and achieve further improvements in safety.

How our airspace currently works at East Midlands Airport

East Midlands Airport is a single runway airport that handles over 76,000 aircraft movements every year. In the daytime, the majority of flights are commercial aircraft operating short-haul routes for the 4.9million passengers that use the airport each year. At night, East Midlands Airport becomes the UK's busiest and most important airport for cargo, processing over 365,000 tonnes of goods at an estimated value of around £50bn a year. To deliver this huge operation, a range of short and long-haul commercial jets are used as freighters, moving goods in and out of the country. The airport is also home to a flying school, the East Midlands Air Ambulance and an aerial survey company, using small propeller aircraft on a daily basis.

The airport's Air Traffic Control (ATC) team manage the movements of aircraft to and from the airport, and also those aircraft that travel through the airport's airspace but do not stop here.

As well as managing the airport's controlled airspace, the ATC team work closely with NATS and other airports to ensure an efficient and safe use of the skies.

2

The airspace change process

– anticipated programme timetable

How the process of modernising airspace works

The industry regulator (the CAA) published a new process called CAP1616 that sets out the process for changing airspace. You can find out more about this process on the CAA website, airspacechange.caa.co.uk.

The CAP1616 process sets out seven stages that airports must go through before deciding on

a new design. Airports going through the process must consult the community and interested stakeholders throughout and must be open, honest and transparent about how decisions are made.

The very latest information on the East Midlands Airport future airspace programme will be clearly shown on the airport website: eastmidlandsairport.com/community/future-airspace.



About Stage 1B

In Stage 1B we will work with communities and stakeholders to agree a set of general rules, or design principles, that will guide how we eventually design the individual aircraft routes to and from the airport.

While there will be a full and formal public consultation on specific routes later in the process, at stage 1B we will be working

closely with local communities and representative stakeholders through a series of workshops and surveys to create the general principles for our process.

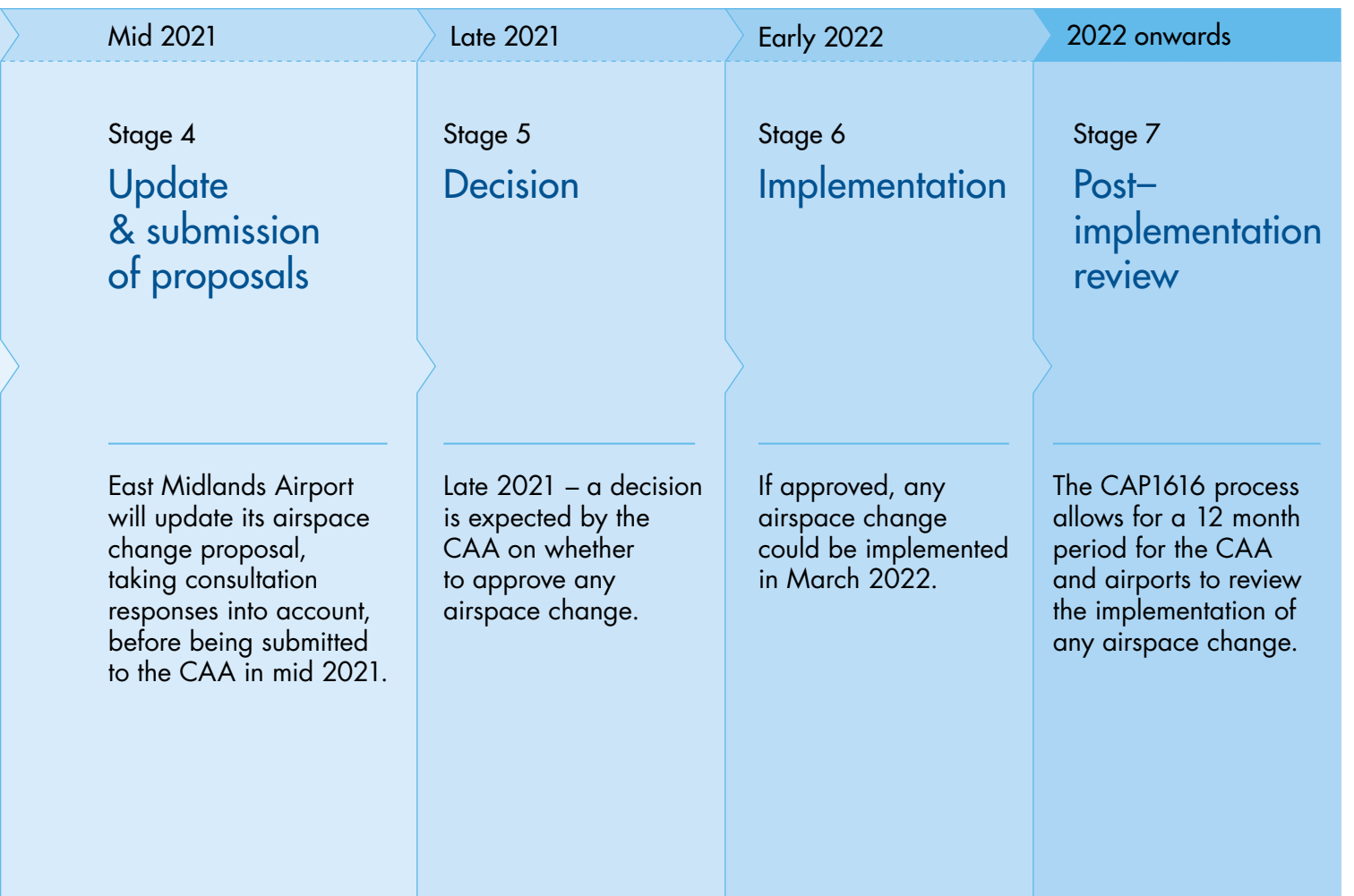
Although stage 1B is not a consultation, members of the general public are of course welcome to engage with the process at this stage and all feedback will be analysed and used to help us shape our thinking.



Read more online:
CAP1616 Process document



Read more online:
airspacechange.caa.co.uk



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Stage 1B and East Midlands Airport



The aim of Stage 1B is for there to be a good level of understanding by change sponsors as to what design considerations are important to stakeholders.

CAA – CAP1616 guidance



Read more online:
CAA Portal

Working with you to develop our plans

We've been working hard over the last few months to carefully identify communities and stakeholders who can affect, or who may be affected by, changes to our airspace. Now, through a series of focus groups and online surveys, we will be trying to get as many views from these groups as possible to help us shape our design principles.

To help us collect a fair and representative range of views at this stage, we are working with YouGov, a leading market-research company. YouGov will run 8 focus groups with representatives from the aviation world, local community groups, businesses, political representatives and national and regional organisations. YouGov has also recruited a representative sample of members of the general public to take part in these meetings.

As well as the focus groups, we are directly contacting more than 1,000 stakeholders to let them know about the future airspace programme and how they can share their views on stage 1B. Of course, any member of the public can also comment on our design principles and all information is available on our website. Here you can also sign up to updates, making sure you can stay up-to-date on our future airspace programme as we progress.

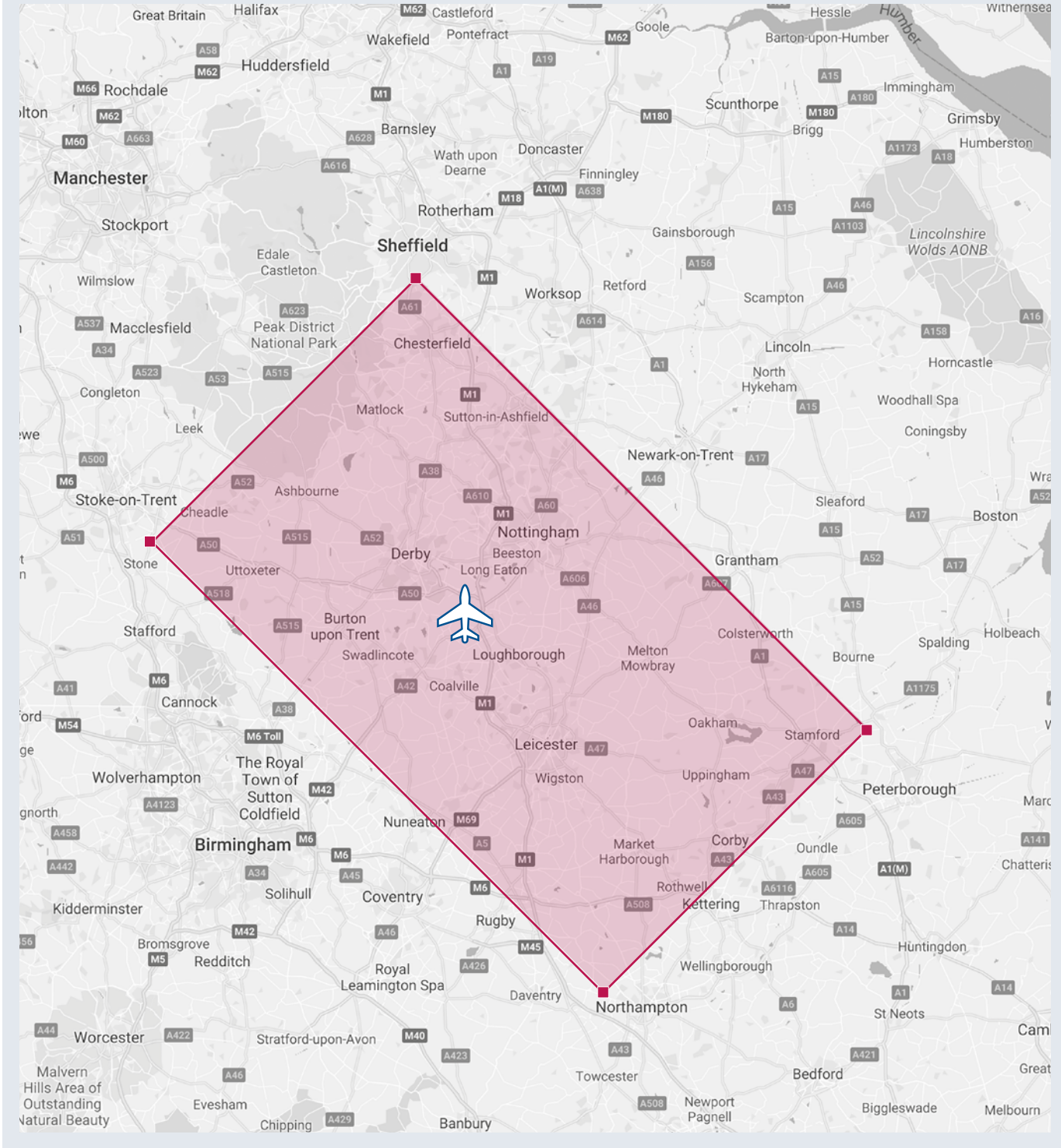
We take data management and privacy very seriously. In compliance with General Data Protection Regulations (GDPR) you will have to 'opt-in' to receive updates on the future airspace programme.

East Midlands Airport area

Although we control airspace up to 10,500 feet, our future airspace programme will only look at how we manage aircraft up to 7,000 feet.

The area in red on the map below shows the maximum area within which aircraft landing at or taking off from the airport could possibly fly below 7,000 feet – the area that could therefore be impacted by any changes we make.

This map will guide our approach to engaging communities and stakeholders at stage 1B. We expect the area of potential impact will then likely get smaller as we refine our proposals through the later stages of the process.



3

continued

Stakeholder reference group

As well as direct engagement with communities and stakeholders, East Midlands Airport has formed an independent Stakeholder Reference Group, or SRG. The SRG will play an important role in the future airspace programme, offering advice, assurance and challenge to our engagement plans and helping us to design and deliver the most inclusive and engaging programme possible.

Key responsibilities of the SRG will be to:

- 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.





Next steps

Up until 30 September 2019 we will be gathering views on what our design principles should be.

We will use the information we gather to help us produce a set of design principles, which we will then test at a further focus-group meeting and with the SRG. A final set of design principles will then be submitted to the CAA in December with an explanation of how we have shaped these principles in collaboration with communities and stakeholders, and how their views have shaped our thinking.

We expect the CAA to review our proposals at the beginning of 2020. If they are 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 paths.

Once approved by the CAA, the design principles will be used by our technical teams to develop a range of route options that could be used in our future airspace. These detailed options will then be extensively consulted on in stage 3 of the CAP1616 process.

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Stage 1B questions and how to respond

How to share your views

You can send your response to these questions by:

- Completing the form online at:
<https://emafutureairspace.typeform.com/to/hTkeen>
- Emailing your responses to:
futureairspace@eastmidlandsairport.com
- Posting your responses to:
Future Airspace, Building 34,
East Midlands Airport,
Castle Donington,
DE74 2SA

Stage 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.

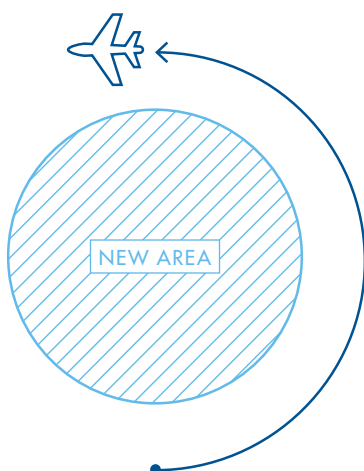
When we design our flight paths, which option below do you prefer and why?

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

Option 1



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

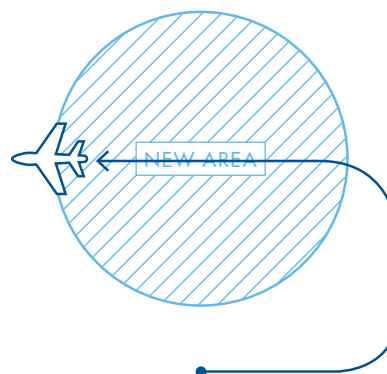


Please use the box below to explain your preference and add anything you think we may have missed.

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.



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

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 overflowed and affected by aircraft noise. However, the people who are overflowed will be affected more than they previously were.

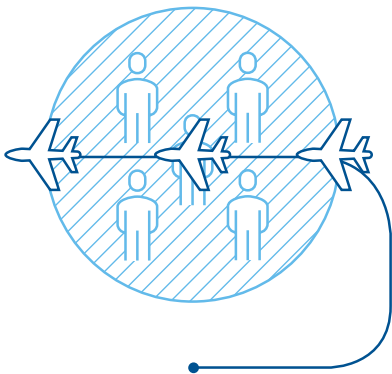
As an alternative, we can design flight paths that spread aircraft out over a wider area, perhaps using several alternative routes, and use varying flight paths on different days of the week or during different times of day to provide periods when there is no aircraft noise. Also, if we take this approach,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

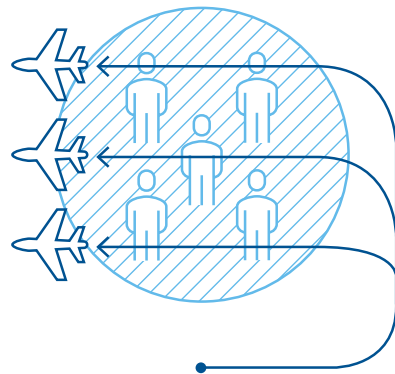
Concentrate flight paths, which will affect fewer people but to a greater extent.



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

Option 2

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.

Stage 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.

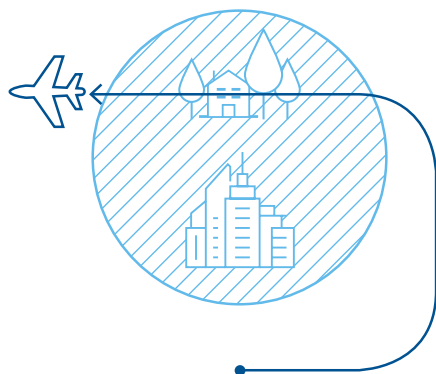
When we design our flight paths, which option below do you prefer and why?

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

Option 1



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

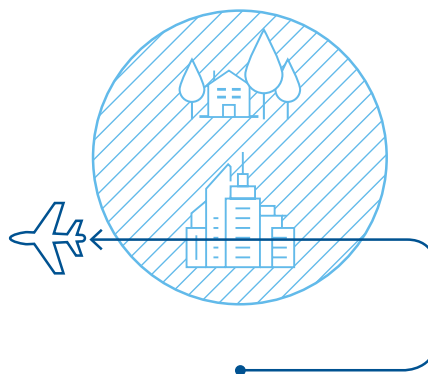


Please use the box below to explain your preference and add anything you think we may have missed.

Option 2



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.

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.

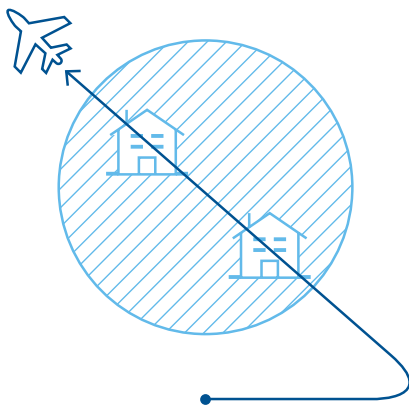
We need to find the right balance between having more direct flights (to reduce emissions and passenger journey times) and keeping local communities' exposure to aircraft noise to a minimum.

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

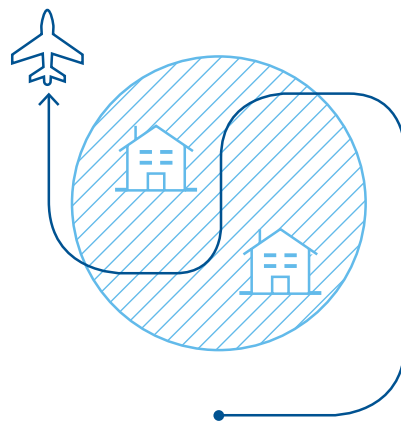
Fly the most direct routes possible to reduce emissions, even if this means flying over more people.



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

Option 2

Avoid flying over communities so fewer people are affected by aircraft noise, even if this means higher CO₂ emissions.



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

Stage 1B questions and how to respond

Question 5

Taking account of current arrangements and agreements

We already operate in a way that minimises the effect of aircraft noise wherever possible, such as westerly use of our runway wherever possible. Some of these ways of operating are voluntary, some have been agreed locally.

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).

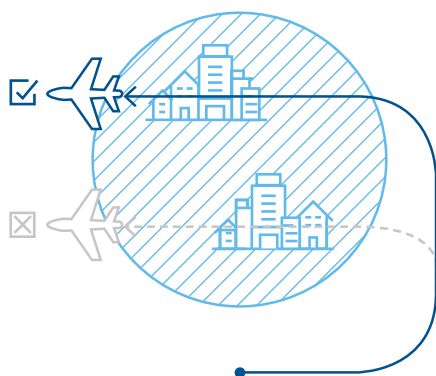
When we design our flight paths, which option below do you prefer and why?

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

Option 1



Continue with current arrangements and ways of operating.



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

Option 2



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.

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:

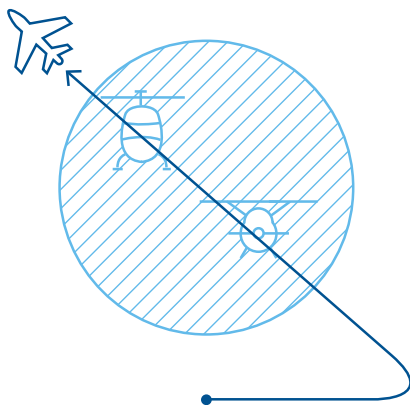
- prioritise the best possible routes for aircraft flying to and from the airport, to minimise noise, emissions and inefficiencies in operations at our airport; or
- introduce flight paths that mean other airspace users are not significantly disadvantaged by changes, even if this means aircraft using the airport cause more noise or emissions.

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

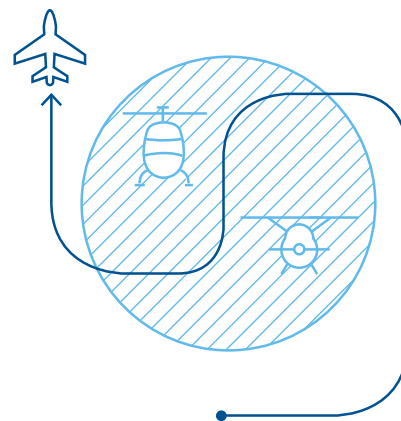
Design the best possible routes (for minimising noise, emissions and inefficiencies in operations at our airport) for aircraft flying to and from the airport, even if this disadvantages other airspace users.



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

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.



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

Stage 1B questions and how to respond

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.

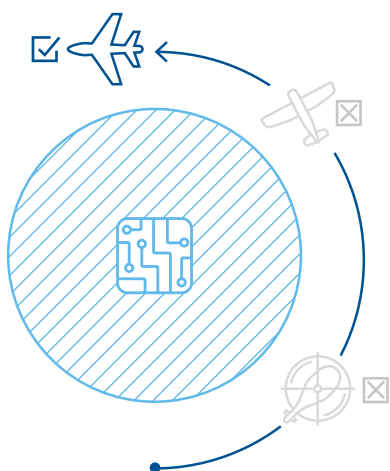
The number of older and smaller aircraft affected by any change we make is likely to reduce over time. In the meantime, we need to consider how and where these aircraft currently operate.

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

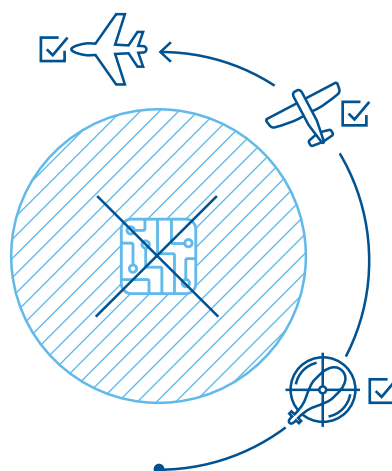
Take advantage of the latest technology and techniques, even if this makes flight paths more difficult for older and smaller aircraft.



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

Option 2

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.

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 overflowed by several routes.

When we design future flight paths, we need to find the best overall outcome and consider whether we should prioritise:

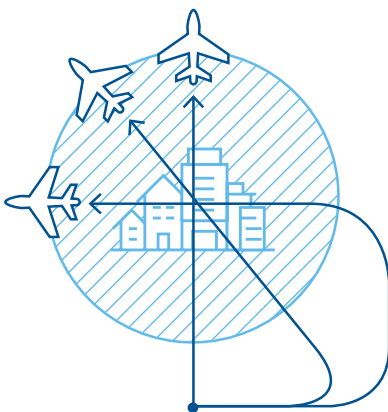
- the efficiency of individual routes; or
- avoiding areas being overflowed by several routes.

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

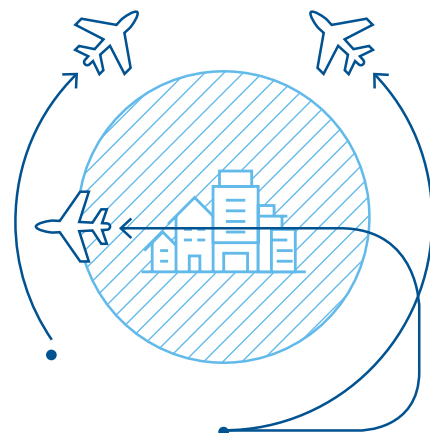
Make sure each route can achieve the best balance between reducing noise and keeping emissions low, even if this means some areas are overflowed by several routes.



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

Option 2

Avoid having areas overflowed 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.

Stage 1B questions and how to respond

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 page 9.

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.

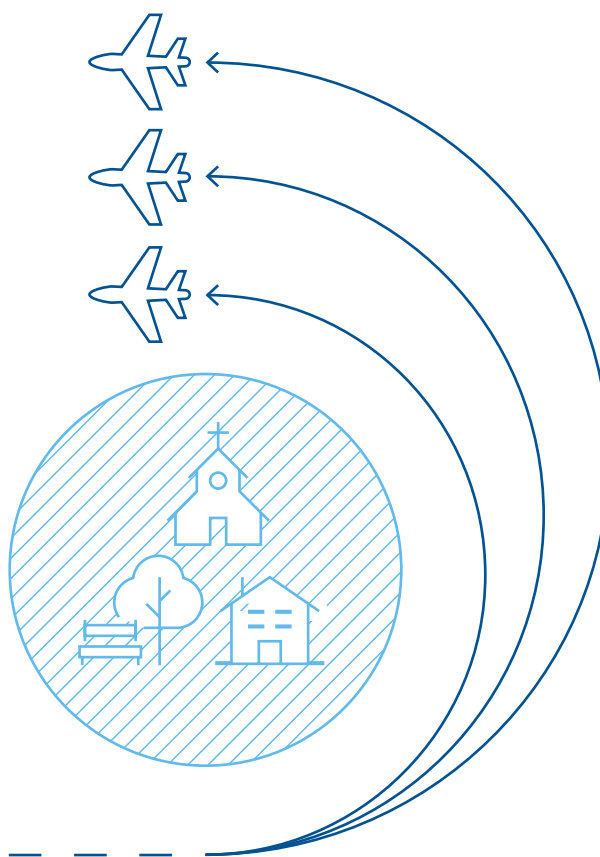
It may also be inappropriate to fly over some areas, for example if they present a danger to aircraft because they are used for military training or have a large number of birds.

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 provide the name of the building or area, where it is located, explain why and when we should avoid them, and 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** – East Midlands 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 above?

Yes No

If no, please explain why.

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

Yes No

If yes, please explain why.

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.

If there is anything else we need to consider, or you have any suggestions, please give details below.

5

Frequently asked questions

5

Frequently asked questions



What are you doing?

Along with most airports in the UK, 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, out of and over the airport.



Why are you doing this now?

The Government wants to have completed the modernisation of UK airspace by 2023. 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.



Will this mean more flights at East Midlands Airport?

We believe a more modern airspace can improve efficiency, safety and reliability for airline operators and airports. It can also reduce the impact of aircraft on the environment and communities through reduced emissions and lower aircraft noise.

Whilst a more modern national airspace system will increase capacity and support a growing aviation sector, there are no anticipated growth impacts here at East Midlands Airport from this work.



What does this all 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.



What about flights at night?

We take our responsibility as a 24/7 airport operator very seriously and know that flights at night are the most disruptive part of our operations.

Our refreshed Noise Action Plan, approved by the Secretary of State in 2019, sets out how we will continue to manage and mitigate the impact of night noise on communities. The future airspace programme will also allow us to review the routes that aircraft fly through the night.



What does all this mean for passengers?

How airspace is managed can affect whether flights arrive and depart on time. By making better use of satellites and technology on board aircraft 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.



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 their communities on changes, they will have a page on the CAA website and may have already contacted you or your community representatives. You can view the CAA website at [airspacechange.caa.co.uk](https://www.airspacechange.caa.co.uk)

Further information



Be part of the conversation

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

Airspace change proposals for all UK airports together with supporting documents can be found on the CAA's airspace change portal [here](https://airspacechange.caa.co.uk/)

<https://airspacechange.caa.co.uk/>

The CAA's CAP1616 document outlines the regulatory process for changes to airspace design

<http://publicapps.caa.co.uk/docs/33/CAP1616E2noninteractive.pdf>

The CAA's full airspace modernisation strategy can be found [here](http://publicapps.caa.co.uk/docs/33/CAP%201711%20Airspace%20Modernisation%20Strategy.pdf)

<http://publicapps.caa.co.uk/docs/33/CAP%201711%20Airspace%20Modernisation%20Strategy.pdf>

Further details and additional information documents relating to East Midlands Airport's part in the wider Government programme of airspace modernisation can be found on our [website](https://www.eastmidlandsairport.com/community/future-airspace/)

<https://www.eastmidlandsairport.com/community/future-airspace/>

Glossary

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



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[eastmidlandsairport.com/
community/future-airspace](http://eastmidlandsairport.com/community/future-airspace)