East Midlands Airport
Future Airspace programme

MAG East Midlands Airport

LISTENING TO STAKEHOLDERS

Our Proposed Design Principles for Airspace Change

November 2019

Contents

Read more online: eastmidlandsairport.com/community/future-airspace

Version History	Report version 2 10 January 2020
Amendment History	Amendments made following request from UK CAA for: 1. Removal of mandatory status of Design Principles on pages 7 and 50 2. Expansion of feedback in section 5, pages 45-51

1 Executive summary

> The Consultation Institute has overseen East Midland Airport's engagement on design principles at Stage 1B of CAP1616 and endorses its approach"
>
> – The Consultation Institute

Developing Principles to Reflect Local Priorities

The Future Airspace Programme currently underway for East Midlands Airport (EMA) is a once in a generation opportunity to review the flight paths that are used by thousands of aircraft every year as they transport people and products to and from the Midlands region.

This document marks the conclusion of the first stage in this journey and details the two-way conversation that has taken place with stakeholders across the East Midlands, helping to shape the eleven proposed Design Principles that were submitted to the Civil Aviation Authority (CAA) for review on 22 November 2019.

The report also explains why change is needed to airspace around EMA, how we have identified the people and organisations that could be impacted, and the next steps in the Future Airspace Programme.

The need for change

In May, we submitted a Statement of Need to the CAA that explained why the controlled airspace around EMA needed to be modernised, and the potential benefits that this could bring to communities, passengers and the environment.

The UK has some of the busiest airspace in the world and the Government has identified the need for investment to upgrade and modernise the national airspace to address constraints, optimise operations and reduce impact on the environment. The CAA's Airspace Modernisation Strategy sets out the process for airports to deliver this change to controlled airspace up to 7,000ft. National Air Traffic Services (NATS) are responsible for changes to the national airspace above this altitude.

In addition, we need to make changes to our airspace in order to comply with new regulatory requirements that mandate the use of satellite navigation technologies. This replaces the current system in use today, which relies on the use of ground-based navigation aids. The transition to this new way or working will need to be in place by December 2022.

Any changes made to EMA's airspace infrastructure need to be coordinated with other airports in the north and south of the country and so EMA is a member of both the Future Airspace Strategy Implementation (FASI) groups, FASI-North and FASI-South. EMA will also work with the Airspace Change Organisation Group (ACOG), which has been set up by Government to coordinate changes at a national level.

A Two-way Conversation

As set out in the CAA's CAP1616 guidance document, the first stage that any airport wishing to make changes to its airspace must complete is the development of a set of Design Principles. These principles will help to shape the Future Airspace Programme as it moves through the seven stages of the CAP1616 process, providing guidance and instruction to EMA's designers to ensure that future flight paths can deliver the changes needed by the airport whilst taking into account the priorities of stakeholders and communities in the local area.

EMA has conducted a thorough engagement exercise in order to identify, listen to and understand, in detail, the views, priorities and concerns of stakeholders when it comes to the routes flown by aircraft using the airport; enabling a two-way conversation about the choices that people would like to see EMA make when plotting future flight paths. We published eleven questions and, via a series of focus groups and an online feedback portal, asked stakeholders to share their views on what mattered most to them. Stakeholders' responses to these questions provided vital insights that we used to shape the initial set of draft Design Principles.

A second phase Stakeholder Workshop was then held, asking a range of stakeholders to share their views on these draft Design Principles; did they reflect earlier conversations? Did they demonstrate the right balance of priorities? Did they create a framework for a future airspace that meets everyone's needs? Following this second phase of engagement, the draft Design Principles were amended and refined in line with stakeholder feedback, resulting in a final set of proposed Design Principles for submission to the CAA.

The main elements of Step 1B engagement were:

Phase One - Understanding the views of stakeholders

- In-depth engagement through a series of focus groups with key stakeholder segments (general public, aviation, Independent Consultative Committee, business, environment and local government) to understand their views and priorities;
- Broader engagement with a larger pool of stakeholders through email invitations and a dedicated online feedback portal;
- Awareness campaign through social and conventional media, allowing the general public to find out about the process and how they can share their views with EMA.

Phase Two – Seeking views on draft Design Principles

- Qualitative engagement to test that EMA had interpreted and used stakeholder insights appropriately to develop a set of draft Design Principles that addressed local priorities. This was achieved through additional focus groups with stakeholders to ensure a balance of views.

Throughout this first Stage of the CAP1616 process, we have sought advice and assurance from The Consultation Institute (tCI) to ensure best practice approaches were taken to stakeholder engagement, and that the principles submitted to the CAA were the result of a two-way conversation with stakeholders.

The following chapters of this report explain the extensive engagement activities that were completed, the insights gained from stakeholders, and the process of developing and refining the proposed Design Principles.

Next Steps

EMA submitted its final proposed Design Principles to the CAA for review on 22 November 2019. The CAA will review these principles to ensure they comply with CAP1616 requirements. Subject to the CAA's approval in December 2019, we anticipate being able to move on to Stage 2 of the CAP1616 process – the early development and assessment of flight paths.

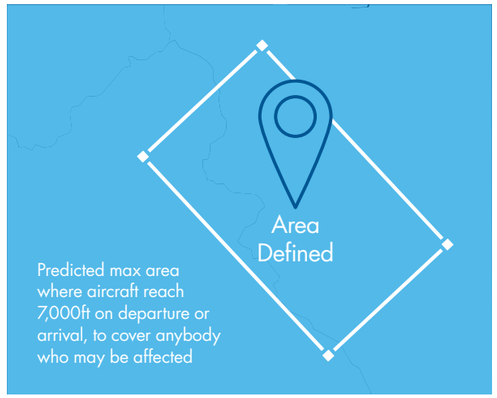
During Stage 2, EMA's appointed airspace designers will develop a longlist of possible flight path options, taking into account the Design Principles agreed at Stage 1. Views will then be sought from stakeholders, helping to assess each option and developing a short list of flight paths that will be taken forward to public consultation in Stage 3 (expected to be late 2020).

Read more online:
CAP1616 Process document

Read more online:
airspacechange.caa.co.uk

Our Step 1B Engagement

STAKEHOLDER IDENTIFICATION



Existing contacts, public info on organisations/ elected reps

GIS Mapping
identified 1,210 relevant stakeholder organisations

Desk-based Research

Local Knowledge

CAA PRIORITIES

1. Directly affected local aviation
2. Members of NATMAC
3. Relevant national organisations
4. Communities affected by potential impacts

PHASE 1 - WE ASKED, WE HEARD...

ENGAGEMENT MATERIALS

Information Booklet
Factual & tool for 2-way discussion

Online Portal
874 visits in September & October

Independently facilitated by YouGov

8X FOCUS GROUPS

Representative views in interest & geography

- 4x General Public
- 1x Aviation
- 1x ICC
- 2x Business, Local Government & Environment

Feedback from participants = 82% felt useful & 92% felt it was important

WE DID...

'Business as usual' engagement – maximising awareness

Media and Social Media
Shared with 49,000 followers on Twitter and Facebook as well as published in print and online news outlets

Community Outreach
3 local events attended

Direct Engagement
Over 3,000 email invitations and reminders sent to stakeholders

Parish Council Forum
Briefing with local Parish Councils on how to use the Online Portal

Internal Communications
650 employees

BAU Meetings
Including ICC & Airport Transport Forum

Analysing Insights
All comments categorised. Longlist developed

Drafting Design Principles
11 shortlisted for further feedback

PHASE 2 - WE ASKED, WE HEARD...

Stakeholder Workshop

to test draft Design Principles & ensure accurate representation of views from:

- ICC Members
- General Public
- Aviation Representatives
- Business, Local Government and Environment

WE DID...

- Analysing Insights
- Finalise Design Principles

PROPOSED DESIGN PRINCIPLES

See overleaf

Our Proposed Design Principles at a Glance

Embracing Technology

Flight paths should be designed using the latest, widely available navigational technology and flying techniques.

Keeping the Skies Safe

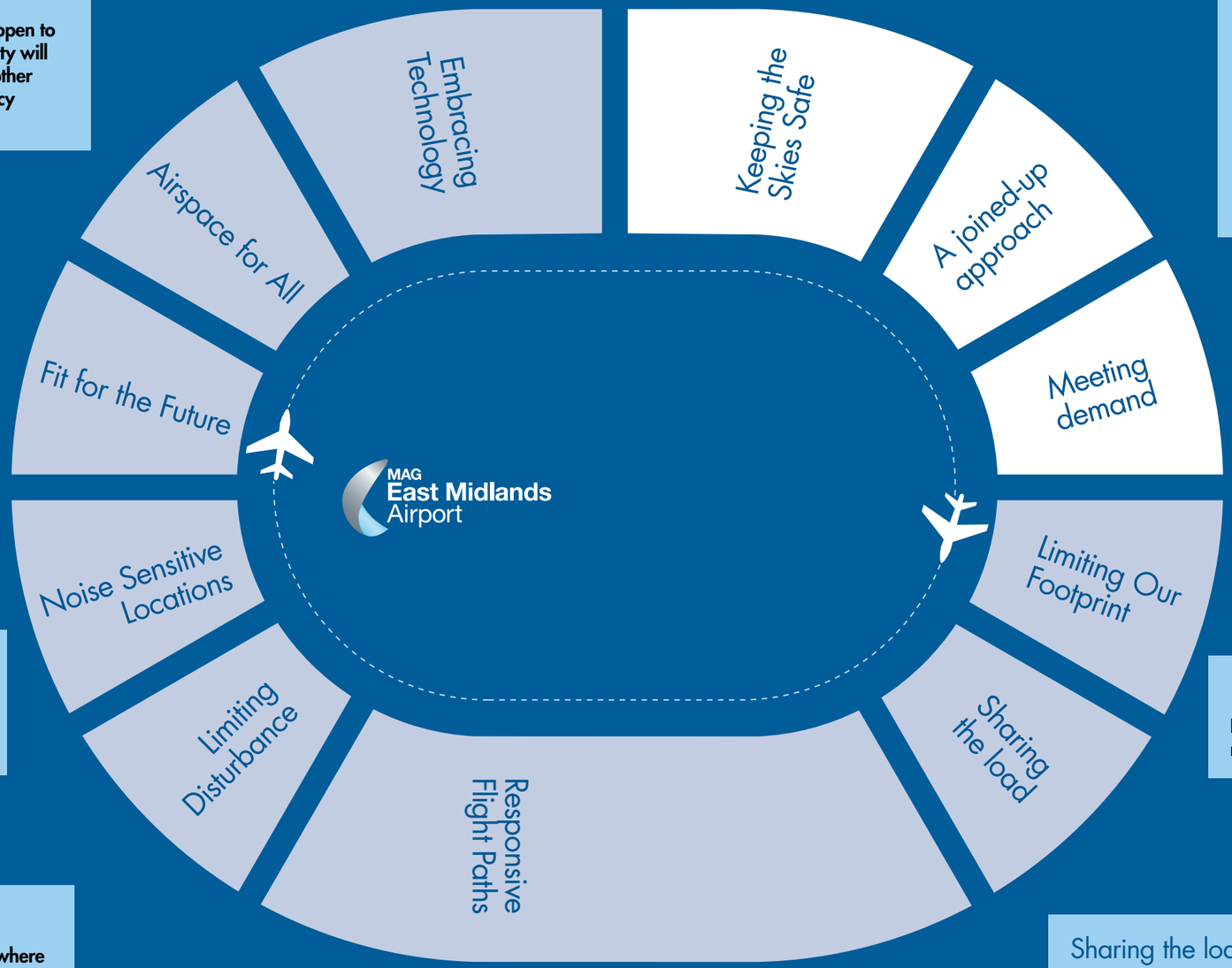
Safety must take precedence over all other factors. Flight paths must be safe for airspace users, the airport and communities on the ground.

Airspace for All

Our controlled airspace should be open to all authorised users; however priority will be given to airport air traffic over other airspace users, except for emergency aircraft.

A joined-up approach

Any changes must align with the broader national airspace modernisation strategy, comply with national, international and industry regulations and legislation, and align with current and future Airspace Change Programmes in the north and south of the UK through involvement in the Future Airspace Strategy Implementation groups.



Fit for the Future

Flight paths should be designed to futureproof our airspace and cannot be constrained by existing arrangements.

Meeting demand

New flight paths must ensure the continuation of services offered today and meet any future demand, in keeping with local and national planning policy, and the Government's policy on 'making best use' of existing runway capacity.

Noise Sensitive Locations

Flight paths should, where practical, avoid locations that are especially sensitive to noise.

Limiting Our Footprint

Flight paths that limit and, where possible, reduce emissions should be implemented.

Limiting Disturbance

Flight paths should seek to limit and, where possible, reduce noise disturbance to communities - especially at night.

Sharing the load

Flight paths should, where practical, be spread out to avoid concentration of aircraft activity to share any noise impacts.

Responsive Flight Paths

Where flight paths have to overfly communities, we will consider existing noise in the local area, and will select flight paths to mitigate effects on areas with relatively low levels of ambient noise.

Our Proposed Design Principles in Detail

	Proposed Design Principle		Summary
Keeping the Skies Safe	Safety must take precedence over all other factors. Flight paths must be safe for airspace users,the airport and communities on the ground.		Safety was universally seen as the top priority for EMA when designing new flight paths. Stakeholders were clear that the airspace must be safe for all airspace users, for airport operations and for communities on the ground, with new flight paths maintaining or improving the safety of routes through EMA's controlled airspace.
A joined-up approach	Any changes must align with the broader national airspace modernisation strategy, comply with national, international and industry regulations and legislation, and align with current and future Airspace Change Programmes in the north and south of the UK through involvement in the Future Airspace Strategy Implementation groups.		There is support for the Future Airspace Programme from stakeholders and people believe there are improvements and benefits to be delivered by a more modern airspace. Stakeholders understood and expected that any changes made to EMAs airspace must also be integrated into a wider national network and must comply with all relevant regulations and standards.
Meeting Demand	New flight paths must ensure the continuation of services offered today and meet any future demand, in keeping with local and national planning policy, and the Government's policy on 'making best use' of existing runway capacity.[1]		Many stakeholders support the role of EMA in the region and local communities, providing an international gateway for the transport of people and products, and a key site of employment for thousands. Stakeholders felt that it was important for EMA to continue the services offered today and ensure that it is fit for any future demand, in line with forecasts set out in its Sustainable Development Plan.
Limiting Our Footprint	Flight paths that limit and, where possible, reduce emissions should be implemented.		Stakeholders felt there was a real opportunity for the Future Airspace Programme to play a role in reducing carbon dioxide emissions and the long-term impact aviation has on the environment. This was a key theme that emerged throughout engagement with stakeholders mindful of climate change and wanting to see as much action taken to reduce emissions as possible, with some stating emissions reduction should be considered even more important than reducing the 'temporary' nuisance of aircraft noise.
Sharing the Load	Flight paths should, where practical, be spread out to avoid concentration of aircraft activity to share any noise impacts.		Stakeholders said that spreading out flight paths was the fairest and most equitable approach to tackling the impacts of aircraft noise; reducing the severity of noise experienced by sharing the load. Aviation stakeholders, whilst agreeing this approach was instinctively fairer, did state that they would prefer to see more concentrated flight paths as they allowed for more predictable and simple routes that reduce complexity. Based on the strength of feeling from the majority of stakeholders, EMA is proposing that flight paths are spread out, unless there are strong technical or safety reasons as to why this is impractical.
Responsive Flight Paths	Where flight paths have to overfly communities, we will consider existing noise in the local area, and will select flight paths to mitigate effects on areas with relatively low levels of ambient noise.		Stakeholders felt that future flight paths should be responsive and sensitive to the areas that are being overflown. By paying consideration to the levels of existing ambient noise on the ground, flight paths should be selected that minimise or mitigate noise effects in areas where there is a low level of ambient noise in the local environment. This could mean different flight paths are preferred at different times of day.
Limiting Disturbance	Flight paths should seek to limit and, where possible, reduce noise disturbance to communities – especially at night.		Noise is the most noticeable impact airports have on the local environment. Stakeholders want to see EMA do everything it can through the Future Airspace Programme to limit and, where possible, reduce noise disturbance. This is a particular priority for the Independent Consultative Committee (ICC) who believe reducing noise disturbance should take precedence over all other environmental issues. Given the unique air cargo operation that takes place at EMA, stakeholders felt it was also important for this Design Principle to highlight that reducing noise disturbance at night is especially important.
Noise Sensitive Locations	Flight paths should, where practical, avoid locations that are especially sensitive to noise.		Tranquillity and the quiet enjoyment of spaces is something that stakeholders wanted EMA to acknowledge in the Future Airspace Programme. It was felt that flight paths should be sensitive to locations where peace and quiet is particularly important, like areas of outstanding natural beauty or places of worship. Some stakeholders noted the complexity of designing flight paths that avoided all locations that were deemed sensitive to noise and that this could prove impractical. EMA has decided to retain this principle to ensure views on particularly noise-sensitive locations are captured and flight paths can be designed to avoid them where it is practical to do so.
Fit for the Future	Flight paths should be designed to futureproof our airspace and should not be constrained by existing arrangements.		Stakeholders recognised that the Future Airspace Programme provided a unique opportunity to ensure EMAs controlled airspace is modern and can deliver the most efficient, effective and environmentally friendly flight paths. Stakeholders wanted to see EMA fully embrace this opportunity and design the best possible flight paths rather than maintaining the status quo.
Airspace for All	Our controlled airspace should be open to all authorised users; however, priority will be given to airport air traffic over other airspace users, except for emergency aircraft.		Stakeholders wanted to see EMA keep its controlled airspace open to all (authorised) users and recognised the existing relationship between EMA's Air Traffic Control and non-airport users. There was significant support from stakeholders for the work of the East Midlands Air Ambulance and they felt it was important that the priority afforded to emergency aircraft such as the Air Ambulance was maintained.
Embracing Technology	Flight paths should be designed using the latest, widely available navigational technology and flying techniques.		To create a modern airspace that allows aircraft to fly more precise routes, stakeholders stated that the latest available technology should be used by EMA to design and manage flight paths paths within the controlled airspace.

1 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/714069/making-best-use-of-existing-runways.pdf

2 Introduction

> This process places the views of stakeholders and communities right at the heart of our decision making"
>
> – Karen Smart

Airspace is a crucial part of the UK's national infrastructure and is vital for moving people and products around the world safely and quickly. UK airspace is some of the most complex and congested in the world and yet the last significant set of changes was made back in the 1950s.

This current infrastructure, flight paths and methods of navigation mean that aircraft and air traffic management practices aren't able to fully utilise the most modern technology available, leading to reduced efficiency, delays and increased emissions from higher fuel use in some areas.

In 2017, UK Government set the modernising of the nation's airspace as a priority and instructed the Department for Transport (DfT) and the UK Civil Aviation Authority (CAA) to work together and develop a coordinated national programme to bring airspace up-to-date and meet future challenges and opportunities.

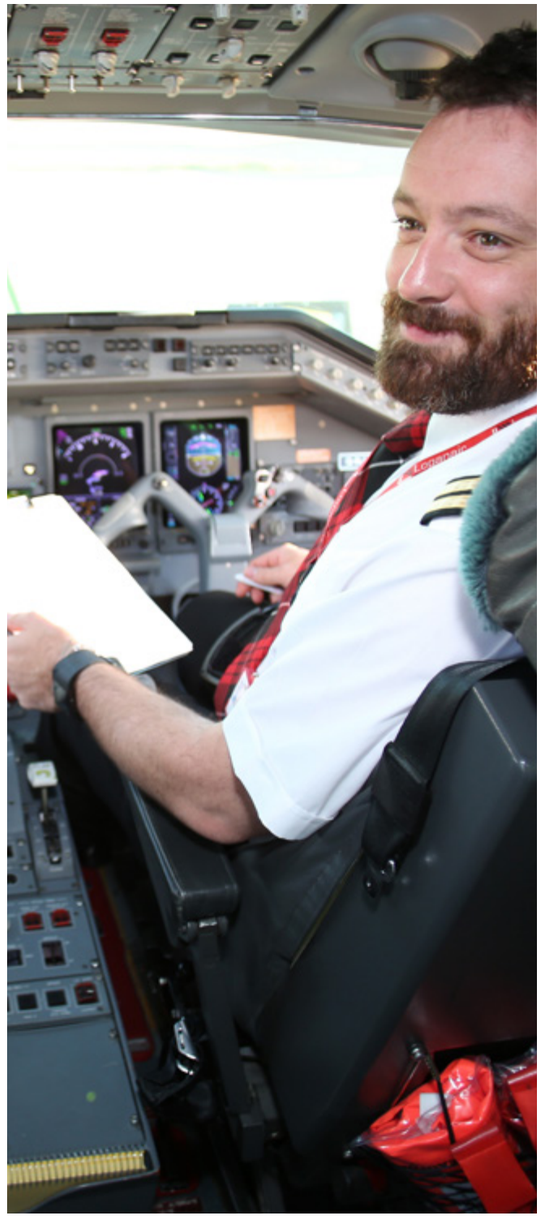
In December 2017, the CAA published its Airspace Modernisation Strategy and created a mandatory change process called CAP1616 Airspace Design: Guidance on the regulatory process for changing airspace design including community engagement requirements (CAP1616).

This strategy was subsequently updated in November 2018 and sets out the stages that the CAA requires airports to complete in order to carry out modernisation of their airspace, a process that takes around two years from start to finish.

East Midlands Airport (EMA) sits at the very heart of the country and serves just under five million passengers a year. EMA handles around 76,620 air traffic movements each year, including passenger, freight, military and general aviation aircraft.

In addition to the important role as a regional passenger airport, EMA is the UK's largest dedicated air-cargo airport, and the 7th largest air-cargo hub in Europe. Processing and transporting over 365,000 tonnes of cargo a year with an economic value of around £40bn, EMA is a key strategic asset for the national economy and is a significant source of jobs and economic activity in the Midlands region.

In June 2019, the CAA agreed that there was a need for EMA to begin its Future Airspace Programme, in order to modernise EMA's controlled airspace (up to an altitude of 7,000ft). This work is now underway to determine how EMA can optimise the flight paths in its control above the East Midlands, considering a range of possible benefits, including safer, quicker, quieter and cleaner air travel.



Our Timeline

November 2019
Design Principles Submitted to CAA

October 2019
Phase Two workshop

September 2019
Online Feedback Portal Activated

August & September 2019
Phase One focus groups

August 2019
Engagement Document 'Be Part of the Conversation' Published

This report marks the conclusion of Step 1B of the CAP1616 process and sets out EMA's eleven proposed Design Principles. The report also highlights the two-way engagement process that has been carried out with a range of stakeholders, and the impact and influence this engagement has had on EMA's proposed Design Principles. These principles encompass the safety, environmental and operational criteria that will be the framework against which the range of future flight path options will be assessed. It is important to note that Step 1B is only the start of the conversation and stakeholders will continue to be engaged throughout, especially at Stage 3 when proposed flight paths are taken forward to an extensive public consultation.

2 continued

The CAP1616 Airspace Change Process

CAP1616 in Detail

Read more online:
CAP1616 Process document

Read more online:
airspacechange.caa.co.uk

The CAP1616 process clearly sets out the stages that airports must follow to make a permanent change to the airspace in their control. There are seven stages that must be completed and, four 'gateways' that EMA must pass through with the CAA in order to progress to the next stage.

After identifying the need for change, EMA submitted a statement of need to the CAA in May 2019, setting out the case for modernising controlled airspace up to an altitude of 7,000ft. In June 2019, following an Assessment Meeting, the CAA agreed that EMA should initiate an airspace change and provisionally indicated that this change was a Level 1 change (a change that requires the airport to follow and complete the full CAP1616 process). This approval marked the completion of Step 1A of the process and formally instigated EMAs Future Airspace Programme.

This report details the work that has been completed as part of Step 1B and was submitted to the CAA for review on 22 November 2019. Following the CAA review, EMA will have completed Stage 1 of the CAP1616 process and will then proceed to Stage 2 – the development and Assessment of flight path options.

The timeline for the Future Airspace Programme is shown below:

2019	2020	Late 2020 – early 2021	Mid 2021	Late 2021	Early 2022	2022 onwards
We are here						
Stage 1 **Define**	Stage 2 **Development & assessment**	Stage 3 **Consultation**	Stage 4 **Update & submission of proposals**	Stage 5 **Decision**	Stage 6 **Implementation**	Stage 7 **Post–implementation review**
East Midlands Airport submitted its Statement of Need to the CAA in May 2019. Following its approval, EMA undertook a series of engagement activities and developed 11 proposed Design Principles; which were submitted to the CAA for approval on the 22nd November	In early 2020, East Midlands Airport will develop and appraise options for any airspace change which will be submitted to the CAA for approval.	East Midlands Airport expects to prepare for consultation later in 2020, including seeking approval from the CAA to proceed. Formal consultation is then expected to take place in either late 2020 or early 2021.	East Midlands Airport will update its airspace change proposal, taking consultation responses into account, before being submitted to the CAA in mid 2021.	Late 2021 – a decision is expected by the CAA on whether to approve any airspace change.	If approved, any airspace change could be implemented in March 2022.	The CAP1616 process allows for a 12 month period for the CAA and airports to review the implementation of any airspace change.

Objectives for Step 1B

The objective of Step 1B is to develop a set of proposed Design Principles that are consistent with EMA's Statement of Need, which can be viewed on the CAA portal.

Throughout CAP1616 there is a clear focus on developing proposed Design Principles through a two-way conversation with stakeholders who may be affected by EMAs Future Airspace Programme.

Whilst this provides a strong foundation, EMAs ambition was to go above and beyond the minimum requirements of CAP1616 and this document highlights the detailed engagement that has taken place in order to achieve this.

Successful delivery of Step 1B will lead to:

- Proposed Design Principles that demonstrate an understanding of the issues that matter most to stakeholders;
- A public awareness and understanding of EMA's Future Airspace Programme and the drivers for change;
- An engaged stakeholder audience who have developed an understanding of EMAs aims through Step 1B and stand ready to engage further as the Future Airspace Programme evolves.

In line with the CAP1616 guidance, the engagement strategy developed for Stage 1 will be developed further as EMA moves on to Stage 2 and beyond. The Stakeholder Reference Group (see page 52) will play an important role in supporting this ongoing engagement.

Read more online:
airspacechange.caa.co.uk

Assurance

In order to ensure the engagement completed throughout EMAs Future Airspace Programme adhered to best practice, was fully transparent and maintained independence, EMA instructed two advisors to support and advise on the work completed as part of Step 1B.

YouGov

Leading market research agency YouGov have been appointed as a delivery partner and commissioned to complete independent, detailed qualitative research on behalf of EMA. YouGov specialises in market research and opinion polling and is the UKs most widely used and quoted market research organisation.

The Consultation Institute

The Consultation Institute (tCI) has been appointed as an external assurance partner to provide advice and guidance throughout the process. tCI is widely acknowledged as the UK's leading voice on consultation and engagement activities and has worked with national and local government, as well as a range of private sector organisations.

3

Methodology

> tCI is satisfied that the approach taken aligns with our best practice standards and has been delivered with a high degree of professionalism"
>
> – The Consultation Institute

Following the CAA's approval of the Statement of Need, EMA began the process of developing the proposed Design Principles that will be used in the future stages of the airspace change process. These Design Principles should encompass the safety, environmental and operational criteria, as well as the strategic policy objectives, that EMA wants to achieve as a result of modernising its airspace. The Design Principles will form the framework against which any future flight path options will be evaluated.

The CAP1616 guidelines set out a clear expectation for all airports to complete a process of transparent, two-way engagement with stakeholders as part of Step 1B. The guidance states that, whilst Step 1B is not a formal public consultation, different stakeholder groups should be engaged to ensure a range of views are captured that reflect the constituencies and interests that could be impacted by any change to airspace.

CAP1616 also sets out the 'building blocks' for engagement that should be followed; identifying the right audience, understanding their situation and defining how they will be engaged. EMA developed an engagement strategy for Step 1B based on these building blocks and had it assessed by tCI before beginning engagement activities. The engagement strategy adopted a two-stage approach that comprised:

Phase One - Understanding the views of stakeholders

- In-depth engagement through a series of focus groups with key stakeholder segments (general public, aviation, Independent Consultative Committee, business, environment and local government) to understand their views and priorities;
- Broader engagement with a larger pool of stakeholders through email invitations and a dedicated online feedback portal; and
- An awareness campaign through social and conventional media, allowing the general public to find out about the process and how they can share their views with EMA.

Phase Two – Seeking views on draft Design Principles

- Qualitative engagement to test that EMA had interpreted and used stakeholder insights appropriately to develop a set of draft Design Principles that addressed local priorities. This was achieved through a stakeholder workshop with a cross-section of stakeholders from the Phase One focus groups, to ensure a balance of views.

This engagement strategy ensured that a mix of methods, detailed in this chapter, were used to make sure that a representative sample of stakeholders from across the region was engaged. The use of a two-stage process also reflects the requirements for Step 1B engagement to be a two-way conversation with stakeholders.

Stakeholder identification

Whilst EMA controls its local airspace up to 10,500 feet, the scope of the Future Airspace Programme is aircraft movements in the lower parts of the airspace - 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 EMA could fly below 7,000 feet. As stakeholders within the red box could potentially be impacted by any future changes to EMA's airspace, this zone was adopted as the 'Area of Potential Impact' for the Future Airspace Programme. Engagement focussed on stakeholders located within the Area of Potential Impact, although it was not restricted to this area and those outside of the Area of Potential Impact could also share their views.

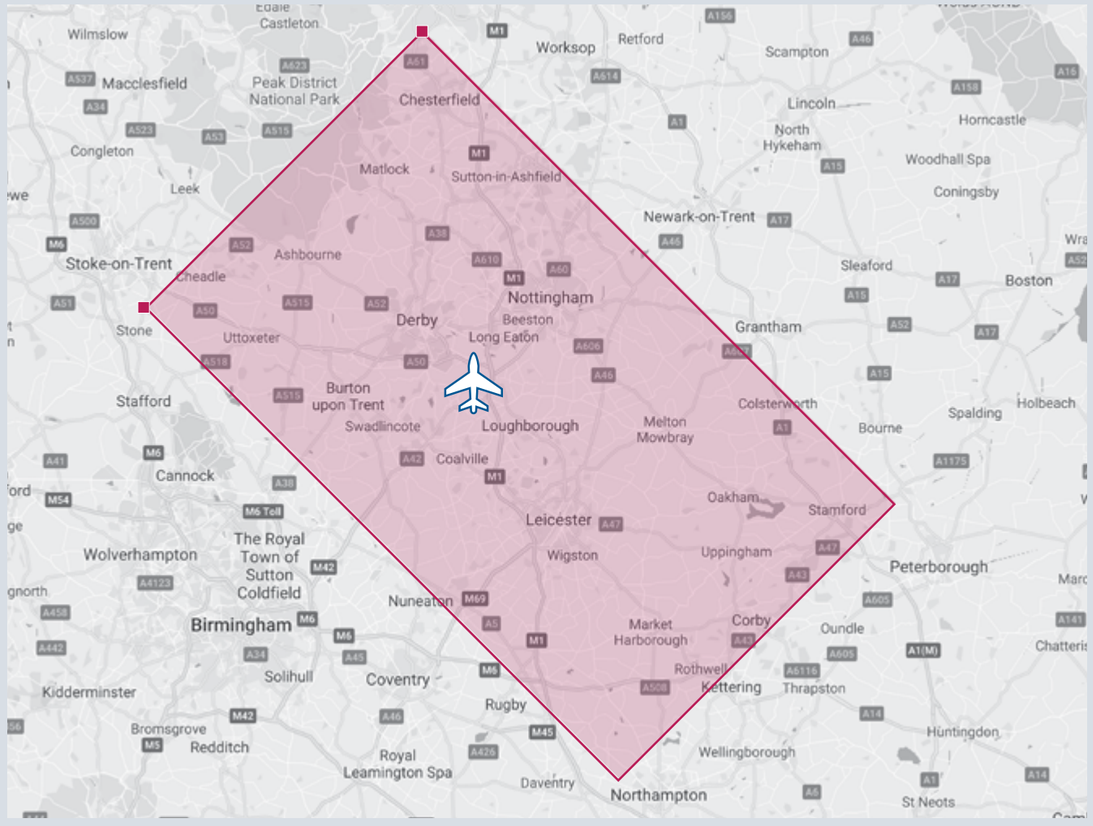
In conjunction with tCi, EMA carried out the following actions to identify stakeholders within the Area of Potential Impact:

- Analysis of existing contacts/ relationships, which included those who had previously requested to be updated on the process
- Analysis of publicly available information about the organisations/elected representatives and other relevant stakeholders in the communities
- Analysis of paid-for data of parish councils and healthcare organisations

This allowed EMA to develop a detailed list of representative stakeholders with different interests and priorities from across the Area of Potential Impact. This list was then assessed against, and categorised in line with, the recommended stakeholder groups set out in CAP1616:

- Directly affected local aviation stakeholders;
- Members of the National Air Traffic Management Advisory Committee;
- Relevant national organisations; and
- Communities affected by potential impacts (such as noise or economic growth) associated with the change.

The full list of stakeholders engaged in Step 1B is included in appendix 1a. This list forms the foundation of EMAs stakeholder database for the Future Airspace Programme and this will be reviewed and updated regularly throughout the next stages of the CAP1616 process.



Engagement Materials

Stakeholder Question Set

Before embarking on Step 1B, EMA devised a set of questions that sought to encourage discussion and debate with stakeholders about the possible choices that could be made in order to modernise EMAs airspace in line with the Statement of Need. The questions also gave stakeholders the chance to raise any other issues of priority to them and those they represent that EMA may not have considered. These questions were the starting point for discussion at the phase one focus groups and the online engagement exercises that were carried out as part of Step 1B.

In summary, the question themes were:

1. Avoiding change or flying over new areas
2. Concentrating or spreading out flight paths
3. Flying over built-up areas
4. Balancing noise and emissions
5. Taking account of current arrangements and agreements
6. Other airspace users
7. Aircraft types
8. Multiple flight paths in the same area
9. Areas that EMA should avoid flying over

The full question set, including background information, can be found in 'Be Part of the Conversation' (Appendix 3)– the information booklet that was developed and published to aid the Step 1B engagement process.

In addition to these question themes, stakeholders were asked whether EMA had identified the right requirements that must be met in any future airspace design, such as safety and regulatory standards. Open-ended questions were also asked throughout to allow stakeholders to inform EMA of any other topics they felt should be considered during the development of the draft Design Principles.

The questions were designed to allow stakeholders to state a preferred option (generally, A or B), or to suggest an alternative option if they felt this was better. All of the questions also provided the opportunity for stakeholders to share other thoughts or comments that they wanted EMA to take into consideration.

Before publishing the questions for use at the focus groups and on the online portal, the questions were reviewed by the Plain English Campaign and were accredited with the Crystal Mark for clarity. EMA sought this accreditation to ensure the questions were as clear as possible for stakeholders, who may have little or no previous experience in the aviation industry.

Be Part of the Conversation – Engagement Booklet

To provide stakeholders with a base level of understanding about the Future Airspace Programme, the CAP1616 process and the areas that EMA wanted feedback on, an information booklet was developed and published.

The document, titled 'Be Part of the Conversation' is available on a dedicated page on the EMA website, eastmidlandsairport.com/community/future-airspace. This webpage hosted information about the programme, alongside links to the CAA Online Portal and to a useful video by the Airport Operators Association (AOA) on future airspace.

Several versions of the document were created to ensure it was accessible and usable to different groups with varying needs:

- Full colour digital version designed for viewing on a computer
- Full colour downloadable version for printing
- Accessible, large text, black and white version for readers with visual impairments

The link to these documents were emailed to the 1,210 stakeholders EMA identified, inviting them to read the document and share their views by email, letter or by using the online feedback portal. Over 1,900 Reminder emails were also sent to stakeholders throughout the engagement period to encourage involvement. All received responses were then independently analysed by YouGov and a summary report was issued to EMA.

Be Part of the Conversation – Online Portal

To make the process of engaging as simple as possible for participants, EMA developed an easy to use online feedback Portal. This online tool provided individuals and organisations with background information about the Future Airspace Programme, links to further information, and the detailed engagement questions. As well as collecting views on the questions, the portal provided stakeholders with the option to share views on the process being followed by EMA and raise anything they felt may have been missed.

There were two methods of accessing the portal. EMAs 1,210 identified stakeholders received email invitations to use the portal. In addition, a public link to the online portal was made available on the EMA Future Airspace webpage.

The online portal was live from 7 September 2019 until 7 October 2019. In total EMA received 326 completed online forms, two written letters and two emails responding to the questions. On closure of the online portal, raw data was sent to YouGov for independent review and analysis, before it was presented to EMA in a summary report (Appendix 10).

Phase One Engagement

Focus Groups

For the first phase of engagement activities, EMA instructed YouGov to provide a thorough project plan to deliver a number of detailed focus groups with stakeholders to understand their views. EMA commissioned YouGov to complete this work in order to ensure independence and provide stakeholders with a neutral environment to share their views.

In total, YouGov conducted eight focus groups, each lasting two hours. The table below details the focus groups that took place and the method of recruitment that was used for each.

Focus Group Category	Recruitment Methods
General Public (North East) General Public (North West) General Public (South East) General Public (South West)	To ensure the views of communities potentially impacted by change were directly engaged in the Future Airspace Programme, YouGov used their panel network to recruit individuals living within the Area of Potential Impact to take part in a screening survey to confirm their eligibility to take part. YouGov then invited a mix of respondents to attend the focus groups. The participants were not just representative of a broad geographical area but also ensured a mix of ages, social grades, ethnicities and genders within each focus group.
Business, Local Government & Environment (East) Business, Local Government & Environment (West)	Recruitment for the business, environment and local government focus groups was completed in two phases. A first wave of invitations and screening questionnaires were sent to organisations and businesses on the stakeholder list. Any remaining spaces were then filled by YouGov, who used their panel network to identify individuals who represented business, environment or local government within the Area of Potential Impact.
Aviation Independent Consultative Committee (ICC)	Given EMAs existing relationships with these two stakeholder groups, EMA issued the invitations to members of the ICC and local aviation stakeholders. Those who expressed an interest were then contacted by YouGov, who finalised the recruitment and arranged for attendance of the focus groups.

In line with standard practice, YouGov made an expenses payment of £70 to general public participants. For all other focus group attendees, a donation of £70 was made to a charity of their choosing to thank them for taking part in the exercise.

The focus groups followed a standard format to ensure all participants obtained an equal minimum level of understanding on the topics discussed. The format for the focus groups is detailed below:

- Introduction and warm up – welcoming the attendees, explaining the purpose of the focus group and a quick ice-breaker exercise.
- Perceptions of EMA – an exploration of how EMA is viewed by stakeholders in the room and any perceived benefits / challenges EMA brings to the region.
- Introduction to the Future Airspace Programme – raising awareness of the national and local need for airspace change and the process to bring it about. An explanation was also given of the Government's reasons for changing airspace in the UK. Stakeholders were then offered the opportunity to provide comments on this.
- Introduction to the questions – A3 display boards were used to illustrate each of the 11questions and provide supporting commentary. Stakeholder views were recorded on the question themes, the options suggested by EMA, any improvements or alternative options which stakeholders wanted to suggest, and any challenges or trade-offs that needed to be considered by EMA.
- Summary and close – a recap on the discussion, and any final comments / questions from respondents, before closing the session.
- The general public focus groups were conducted at locations in the vicinity of attendees' home addresses. The remaining focus groups were carried out at the Jurys Inn Hotel on the East Midlands Airport campus. Focus groups took place between August and September 2019 and each lasted two hours.

Attendance at the aviation focus group was lower than expected and some individuals who had confirmed availability did not attend. To ensure the views of this group were fairly represented, EMA instructed YouGov to conduct a series of 'top-up' telephone interviews. These interviews followed the same format as the focus groups and the responses were recorded by YouGov for use in the analysis.

On completion of the focus groups, YouGov presented EMA with four independent summary reports, detailing the insights and key views of each CAP1616 stakeholder group (listed on page 17). These reports can be found in appendices 6, 7, 8 and 9.

Business as usual engagement

In addition to the dedicated engagement activities and focus groups outlined above, EMA continued to meet with key regional leaders and interested stakeholders as part of its day-to-day business. Throughout August and September 2019, the EMA team ensured that the Future Airspace Programme was on the agenda for any appropriate internal and external meetings. Awareness of the Future Airspace Programme and details of how people could engage was highlighted at the following meetings:

Meeting	Sector Represented	Audience
Independent Consultative Committee	Local Communities and Interest Groups	External
EMA Transport Forum	Local Public Transport Operators and Planning Officers	External
Parish Council Form	Local Parish Councils	External
Colleague Forums	EMA Employees	Internal

Table 2 - internal and external meetings

Maximising Awareness

Whilst the CAP1616 guidance promotes engagement with stakeholders, it does not require airports to carry out a formal public consultation - this will take place at Stage 3 of the CAP1616 process. EMA felt it was however still important to use Step 1B to raise awareness and begin a conversation with the general public about the Future Airspace Programme and let communities know that work to modernise the local airspace was underway.

In order to raise awareness more generally, EMA published a press statement on 25 September 2019 titled 'Region's Airspace Overhaul' detailing the purpose of the Future Airspace Programme, the potential benefits, the timeline for the work and details of how the community will be able to get involved in the public consultation later in the CAP1616 process. The press release also shared a link to the EMA website, where more information could be found, people could access the online feedback portal to share their views and sign up for ongoing updates. The press statement was published widely by news outlets, including ITV News, Leicester Mercury, West Bridgford Wire and Leicestershire Live. Details of EMA's airspace change programme were also shared in a number of local parish council newsletters. A copy of the press release is included in appendix 5.

EMA also decided to raise awareness of the Future Airspace Programme using the airport Facebook and Twitter pages. With a combined following of 49,358 users and an average reach of 770,000, EMA felt these channels were a useful way to let people know where they could find out more, sign up for updates on the Future Airspace Programme or complete the online portal.

In addition, EMA's Community Relations Team shared information about the Future Airspace Programme with attendees at a number of regular outreach events that took place during the Step 1B engagement window. Leaflets were handed out during these events, allowing people to visit EMAs website when they returned home in order to find out more information. The outreach events at which the Future Airspace Programme leaflets were shared are listed below:

Community Outreach	Dates
Castle Donnington Farmers Market	10th August 2019
Diseworth Show	7th September 2019
Melbourne Art Festival	14th September 2019

Table 3 - community outreach

As well as raising awareness externally, EMA sent updates on the Future Airspace Programme to all EMA employees. A series of business-wide emails were issued, and notices were placed in the weekly colleague e-newsletter, letting people know about the programme, the engagement that was underway and where they could find out more information.

Phase Two Engagement

Stakeholder Workshop

Once the initial engagement process was complete, and all stakeholder and public insights were analysed, a set of draft Design Principles were developed. Details of how stakeholder insights were used to support the drafting of these principles are included in Chapter 5 of this report. In order to ensure these draft principles were a fair and reflective interpretation of stakeholder views, YouGov were instructed to gather further views of stakeholders on the draft Design Principles.

To deliver this, YouGov convened a stakeholder workshop, held on Monday 28 October. Attendees were recruited by YouGov and consisted of multiple stakeholders from all of the key groups (aviation, general public, business, local government and environment). Some of the attendees had attended the earlier focus groups and could comment on how well they felt EMA had taken on board earlier comments in developing the draft Design Principles. Others had not been engaged in the process before and offered a fresh perspective on whether the draft Design Principles made sense and the rationale used to arrive at them was sound. To ensure all stakeholders had a base understanding of the Future Airspace Programme, YouGov facilitators begun the workshop by recapping the purpose of the programme, the case for change and work that had been completed to date.

The feedback from the workshop was published by YouGov in a follow-up report, included in appendix 11. This report was then used by EMA to further refine the draft Design Principles.

Forming a Stakeholder Reference Group

EMA wanted to establish an independent body of stakeholders who could help to ensure the engagement activities undertaken were robust. To do this, EMA established the Stakeholder Reference Group (SRG); a group of stakeholders from wide ranging backgrounds who will input into the engagement strategy EMA develops for the public consultation element of CAP1616.

Although Stage 3 will not be reached for a number of months, EMA has already formed the group so that it can establish an understanding of the programme and the important role the SRG will play.

EMA instructed tCI to establish a structure for the SRG, the Terms of Reference, requirements for an independent Chair, and to recommend an initial membership. tCI was also asked to act as the independent secretariat for the SRG, providing administrative support and guidance to the Chair and membership.

A senior member of tCI has been appointed as interim Chair of the SRG in order to agree the Terms of Reference, membership and recruitment process for the permanent Chair. Current membership of the SRG is shown below:

Position	Organisation	Sector Represented
Member	Jet2.com	Aviation
Member	East Midlands Chamber of Commerce	Businesses
Member	Stephenson College	Education
Member	Gifted Philanthropy	Care/Charity
Member	Chaplaincy	Faith Groups
Member	Citizen Advice Leicestershire	Vulnerable or Hard to Reach Communities
Member	ICC	Impacted Communities
Member	NW Leicestershire District Council	Local Authority
Member	EMA Disability Forum	Disabled Communities
Member	East Midlands Councils	Local Government

At the first meeting of the SRG (30th October 2019) members agreed to further strengthen the membership and proposed that additional members should be sought to represent the environment and youth sectors.

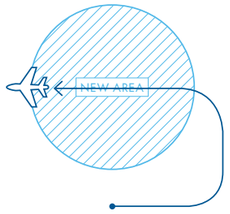
4 Public and Stakeholder feedback

The following pages detail the questions that were asked in focus groups and on the online feedback portal as part of the Step 1B engagement process. They also summarise the statistical data that was received and the key themes that emerged in individual stakeholder responses.

Question 1

Avoid change or fly over new areas

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.



Stakeholders preferred option

Figure 2 - results dashboard - avoid change or fly over new areas

Question 1 asked stakeholders for their views on whether future flight paths should be designed to deliver the best possible routes (in terms of emissions, noise and operational efficiency), or whether priority should be given to avoiding aircraft overflying new communities.

The majority of stakeholders who submitted views on this question expressed a preference for option 2, which favoured designing the best possible routes and trying to maximise benefit of the airspace change programme rather than focussing on avoiding flying over new areas. The preferences of each of the focus groups are shown in Fig. 2.

For many stakeholders, option 2 was the best fit with the purpose of the Future Airspace Programme as it allows each route to be designed to be the best it can in terms of emissions, noise and operational efficiency. Numerous stakeholders acknowledged that the chance to modernise airspace is a once in a generation opportunity and therefore routes should be designed 'from scratch' so they work both today and into the future.

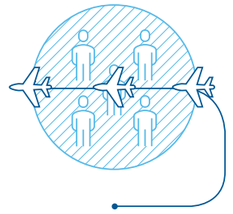
When reviewing the comments received from those stating a preference for option 1, the main drivers were concerns around new populations being impacted by aircraft noise.

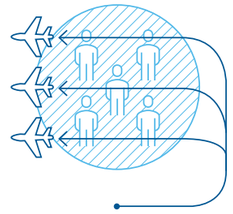
> "I believe you need to find the best long term solution for everyone and not hold onto "old" practices"
>
> – Online portal feedback

Question 2

Concentrating or spreading out flight paths

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.





Stakeholders preferred option

Figure 3 - results dashboard - concentrating or spreading out flight paths

Question 2 asked stakeholders for their views on whether flight paths should be spread out over a larger area or concentrated to fly a tight track over a specific geography; the premise being that spreading out flightpaths would impact a higher number of people but to a lesser extent, whereas concentrating flightpaths would reduce the number of people exposed to aircraft noise, but that the impact on those exposed would potentially be more significant.

As can be seen in Fig. 3, most stakeholders stated a preference for option 2, spreading out flight paths, although the majority of aviation responses cited a preference for concentrating them.

The primary feedback from those who favoured option 2 was that spreading flight paths, and therefore any impact from associated noise, is fairer for communities overflown by aircraft. Although many considered this approach was the most equitable in relation to aircraft noise, they suggested that, if spreading flight paths out increased aircraft emissions or had a significant impact on flight times, this should be taken in to account.

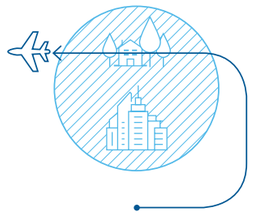
Regarding the views of aviation stakeholders, although they too recognised that option 2 was an instinctively 'fairer' option for overflown communities, they still thought option 1 was preferable as concentrated flight paths remove complexity from the system, increasing predictability and minimising the risk of mistakes and infringements.

Question 3

Flying over built-up areas

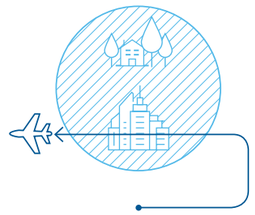
Option 1

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.



Stakeholders preferred option

General Public	Aviation	ICC	Business, Environment and Local Government	Online Portal
Option 2	Option 2	Option 1	Option 2	Option 2

Figure 4 - results dashboard - flying over built-up area

Question 3 asked stakeholders for their views on the differences between aircraft overflying villages and rural areas and those areas that are more built-up (towns, cities etc).

Across most of the stakeholders who responded there was a preference for option 2, although feedback from the airport Independent Consultative Committee (ICC) differed and the majority of respondents from this group felt that option 1 would be more suitable.

For those preferring option 2, the general understanding was that aircraft flying above more built-up areas would be less noticeable as there is typically a higher level of background noise in these areas, with one stakeholder stating that aircraft would simply 'add to the urban soundtrack'. Many respondents also stated that rural areas should be avoided; because there is a greater leisure and amenity value placed on less built-up spaces, so the needs of nature and those visiting 'tranquil areas' also need to be considered – not just residents.

Some stakeholders stated that they would like to see assurances from EMA around the safety of aircraft overflying more built-up areas and whether this increased the risk of an aircraft accident. Others also suggested a third option where routes might be alternated based on time of day (e.g. built-up areas in the daytime and more rural areas at night).

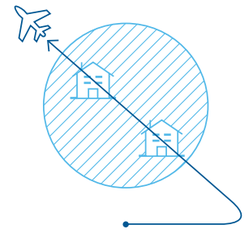
The majority of respondents from the ICC stated a preference for option 1. The rationale for this was that they felt this option delivered the greatest reduction in the total number of people overflown. This stakeholder group felt this was the most important aspect from a noise reduction perspective.

Question 4

Balancing noise and emissions

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.

Stakeholders preferred option

General Public	Aviation	ICC	Business, Environment and Local Government	Online Portal
Option 1	Option 1	Option 2	Option 1	Option 2

Figure 5 - result dashboard - balancing noise and emissions

Question 4 asked stakeholders for their views on the main environmental by-products of aircraft - carbon dioxide (CO_2) emissions, local air quality emissions, and engine noise.

Three stakeholder segments (general public, aviation and business) felt that reducing emissions should be a priority, whilst two groups (ICC and online portal participants) felt that reducing aircraft noise should be EMA's focus.

Those who cited a preference for reducing emissions felt strongly that the issues of climate change and the need for 'net zero' solutions should influence decisions made in the Future Airspace Programme, ensuring flight paths are designed to reduce emissions, even if that means some increase in number of people who experience some aircraft noise. Stakeholders who held this view felt that noise should be regarded as a 'temporary inconvenience', whereas emissions are seen to inflict 'permanent and irreversible' damage on to people and the environment.

The two stakeholder segments who preferred noise reduction taking priority, all recognised the need to reduce the environmental impact of aviation although they still felt strongly that this should not come at the expense of the impact of noise on communities.

Some stakeholders said that they found this a difficult trade-off to evaluate and that their preference would be influenced by the quantities of carbon that could be removed from aircraft operations. If emissions reductions were 'significant 'then they should be strived for, although if reductions were 'minimal' then noise reduction for communities should take priority.

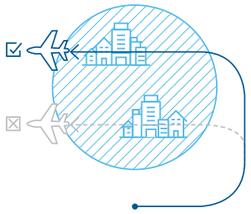
> "We want the best for the environment, but routes should still be optimised to minimise noise"
>
> – Online Portal feedback

Question 5

Taking account of current arrangements and agreements

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.

Stakeholders preferred option

General Public	Aviation	ICC	Business, Environment and Local Government	Online Portal
Option 2	Option 2	Option 2	Option 2	Option 2

Figure 6 - results dashboard - taking account of current arrangements and agreements

Question 5 asked stakeholders for their views on existing operational arrangements that are in place at EMA and whether these should be retained or replaced as part of the Future Airspace Programme.

The majority of all stakeholder groups stated a preference for option 2 (design new routes to achieve the best possible outcomes for reducing noise and emissions while increasing the efficiency of the airport). Stakeholders commented that it was important for EMA to take the opportunity to design flight paths that would meet the needs of today and the future, and not to be constrained by any arrangements that are currently in place. Stakeholders felt that option 1 could hinder the ability of the Future Airspace Programme to deliver benefits (such as reducing noise and emissions), and so such an approach would go against the purpose of the airspace modernisation.

Some stakeholders cautioned that this option could lead to some communities being newly overflown, or more heavily overflown than they are today. However, some stakeholders stated this should not inhibit the ability and the opportunity to design the best possible routes from scratch.

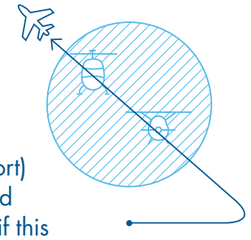
> "More modern & efficient practices should be investigated but implemented with sensitivity to local communities"
>
> – Online Portal feedback

Question 6

Other airspace users

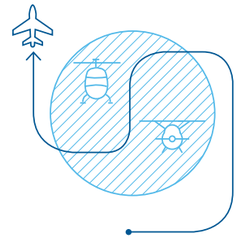
Option 1

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.



Stakeholders preferred option

General Public	Aviation	ICC	Business, Environment and Local Government	Online Portal
Option 1	Option 1	Option 1	Option 1	Option 1

Figure 7 - results dashboard - other airspace users

Question 6 asked stakeholders to for their views on other users of EMA's airspace and how they should be reflected in the design and development of future flight paths.

All stakeholder groups cited a preference for option 1 and prioritised reducing emissions and noise wherever possible. However, stakeholders also appreciated that this approach could cause difficulties for smaller or older aircraft accessing the controlled airspace.

Stakeholders were clear that fairness should be considered and no single user-group should have 'a monopoly over the airspace'. Stakeholders representing the aviation community felt strongly that, although reducing emissions and noise is vitally important, EMA's airspace should remain 'open to all' and that the future airspace programme should not reduce the amount of uncontrolled airspace available for general aviation activity (gliders, recreational aircraft etc.).

All stakeholder groups explicitly requested that the Air Ambulance and military aircraft continued to take priority over all other traffic using the airspace, a practice that is currently adopted today. Many stakeholders felt that, second to emergency aircraft, EMA traffic should then be given priority over other airspace users in the area.

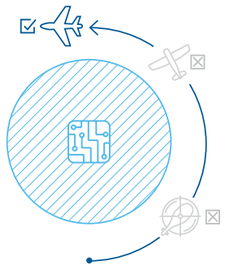
> "If the airspace rules are known to all there should be no problem"
>
> – Online Portal Feedback

Question 7

Aircraft types

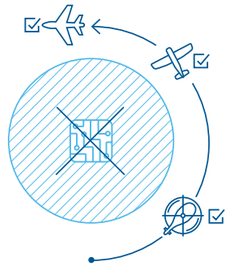
Option 1

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.



Stakeholders preferred option

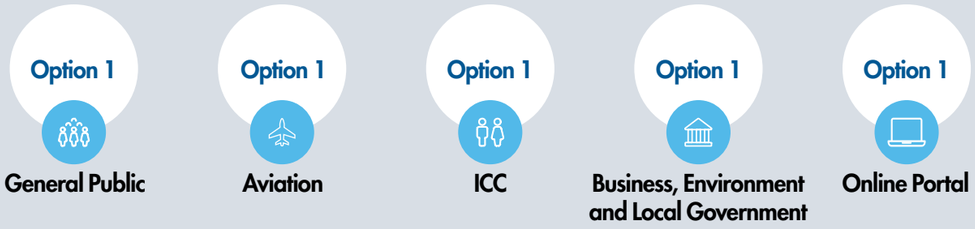


Figure 8 - results dashboard - aircraft types

Question 7 asked stakeholders for their views on the use of technology and the potential benefits or challenges which adopting new technology could have on aircraft access to EMA's airspace.

There was encouragement from all stakeholder groups for EMA to consider the very latest technology and techniques when designing flight paths, and a common view that technology would be likely to play a key role in the modernisation of the airspace.

Whilst there was a preference for new technology to be utilised to drive benefits, some stakeholders questioned the potential impact on older aircraft that may not be able to affordably adapt in order to navigate using the latest technology on the market, and whether this could potentially restrict some users' access to controlled airspace.

In addition to the role new technology can play in more accurate aircraft navigation, stakeholders also talked about the role of new technology in helping to reduce emissions and noise– stating that new technology in aviation was only ever really seen a positive and that EMA should look to take advantage of this wherever possible.

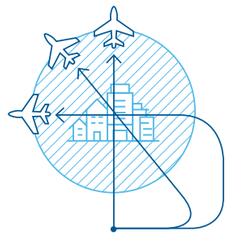
> "New technology should be taken advantage of wherever possible"
>
> – Online Portal Feedback

Question 8

Multiple flight paths in the same area

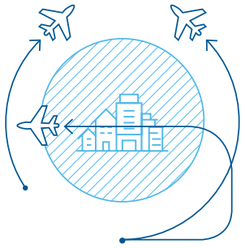
Option 1

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.



Stakeholders preferred option

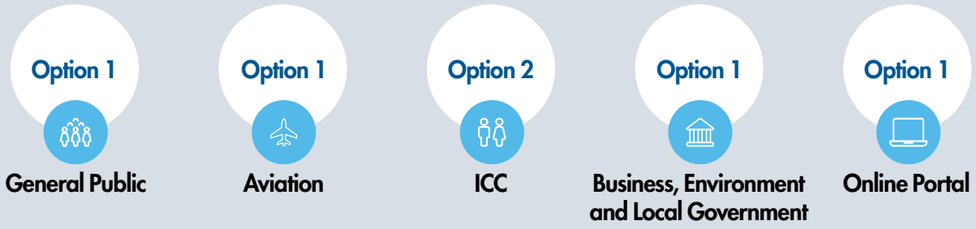


Figure 9 - results dashboard - multiple flight paths in the same area

Question 8 asked stakeholders for their views on locations where there may be multiple flight paths.

Most stakeholder groups saw option 1 as the preferred approach, choosing to prioritise potential reductions in emissions that could be achieved by flying the most direct routes.

Stakeholders from the ICC felt that option 2 was preferable, stating a view that this was a fairer option and one that could lead to the highest reduction in community noise disturbance. A potential option considered by ICC stakeholders was a variation where multiple routes could overfly one area, although there would be a cap on overflights to limit impact.

Some other stakeholders also identified a potential compromise option, where steps were taken to reduce emissions where possible, but not if the cumulative impact over certain communities became 'intolerable'.

A common theme that emerged from business stakeholders in response to this question was around efficiency. Some expressed a view that delivering the most efficient routes could lead to shorter flight times and could therefore attract more airlines to the region. This, in turn, could lead to broader regional benefits associated with airport growth – something they suggested could offset the impact of aircraft noise.

Question 9

Areas that we should avoid flying over

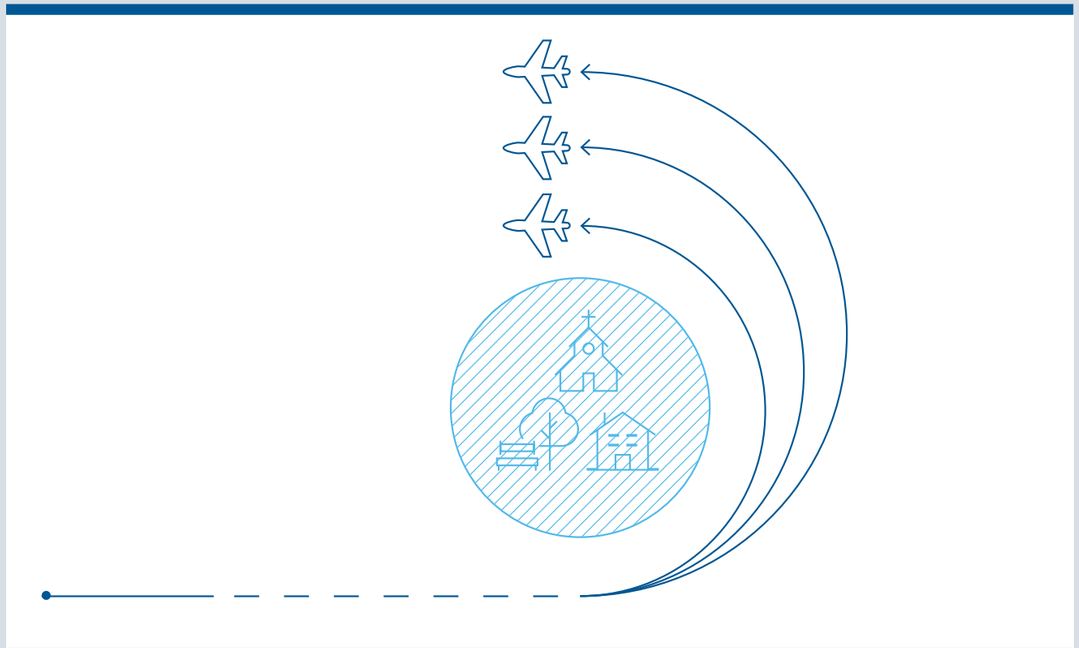


Figure 10 - results dashboard - area that we should avoid flying over

Question 9 asked stakeholder for their views on areas that are especially sensitive to noise and should be avoided, if at all possible.

A range of locations were suggested, with most stakeholders referencing residential areas, parks, nature reserves, schools, hospitals, care homes, churches, places of reflection, community buildings and areas important to wildlife as key areas to consider.

Many stakeholders cited biodiversity as a priority and areas of natural beauty as sites that should be protected. There was also a widely held view amongst stakeholders that 'tranquil areas' should be avoided wherever possible as these areas serve as places of escape for many people.

Although a number of locations were referenced as important to protect, some stakeholders found it difficult to answer this question at this early stage in the CAP1616 process. Stakeholders suggested that this would be easier when potential flight paths are developed as stakeholders could then focus on the specific areas to be overflown.

Some stakeholders highlighted that trying to identify specific locations would become impractical and could potentially make plotting flight paths too complex.

> "I think you should avoid residential areas at night and tranquil historic areas during the day"
>
> – Online Portal Feedback

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.

Figure 11- results dashboard - meeting requirements

At this early stage of the process, EMA identified five areas that it believed were important and should be considered when planning any flight paths in controlled airspace. Question 10 asked stakeholders for their views on whether they felt these were important factors for consideration, and whether there were any other factors that should be taken into account.

There was strong support from all stakeholder groups for EMA to ensure all future flight paths are safe, comply with industry standards and regulations, are consistent with national systems, maintain and improve EMA's operation, and are aligned with Government policy.

Of all these requirements, many felt that safety should take priority above all else. All stakeholder groups were clear that any changes to airspace should not increase the risk to aircraft or communities on the ground in any way. For aviation stakeholders, working with other airports, as part of fitting into a national system- was absolutely essential to secure the most efficient routes to and from EMA.

Question 11

Other things we should consider

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

Figure 12 - results dashboard - other things we should consider

Question 11 asked stakeholders for their views on other things EMA should consider during the Future Airspace Programme.

There was a range of views collected from this question. Many stakeholders referenced the unique night time operation of EMA and asked that this was considered throughout the process, especially regarding night noise.

A number of stakeholders also used this question as a chance to remind EMA of the importance of community involvement and wanted assurance that local communities would be consulted on the process as flight paths were developed.

Other responses included comments that fell outside the scope of the Future Airspace Programme, such as calls for EMA to reduce the number of flights, a suggestion that EMA should close, and requests for additional parking infrastructure.

In total, 6 responses to this question have been passed to EMAs Community Relations Team who will respond accordingly.

"I think at the end of the day the effect on peoples' everyday lives and quality of life is the most important factor and as long as the solutions found are safe then this should be the priority in any future decisions"

– Online Portal Feedback

5 Developing our proposed design principles

In Phase One of EMAs engagement, eight independent focus groups were conducted across four different stakeholder categories, and four 'top-up' interviews were completed. This generated detailed insight into the views of nearly 60 stakeholders. In addition to this, 326 stakeholders and members of the public completed the online feedback portal, giving EMA a wealth of views on stakeholder priorities.

All of this data was analysed by YouGov and a series of feedback reports were generated for EMA, sharing the key themes that emerged from each focus group, the online feedback portal and the letter/email responses. The analysis of these reports (detailed in Fig.13) generated 150 key themes for consideration (Appendix 12). These themes were then reviewed and grouped together where there was duplication or commonality. From these key themes, a longlist of 59 potential Design Principles was drafted. This longlist was then further scrutinised before a proposed shortlist of 11 draft Design Principles was developed. Further views were then sought on the draft Design Principles in a phase two stakeholder workshop to understand whether EMA had reflected the priorities of stakeholders. Feedback from this second phase of engagement was used to further refine the principles into the 11 proposed Design Principles that have been submitted to the CAA for review.

Feedback that fell outside the scope of the CAP1616 process, themes that were not developed further and the Design Principles not shortlisted are discussed on pages 40-43. They are also detailed in appendix 12.

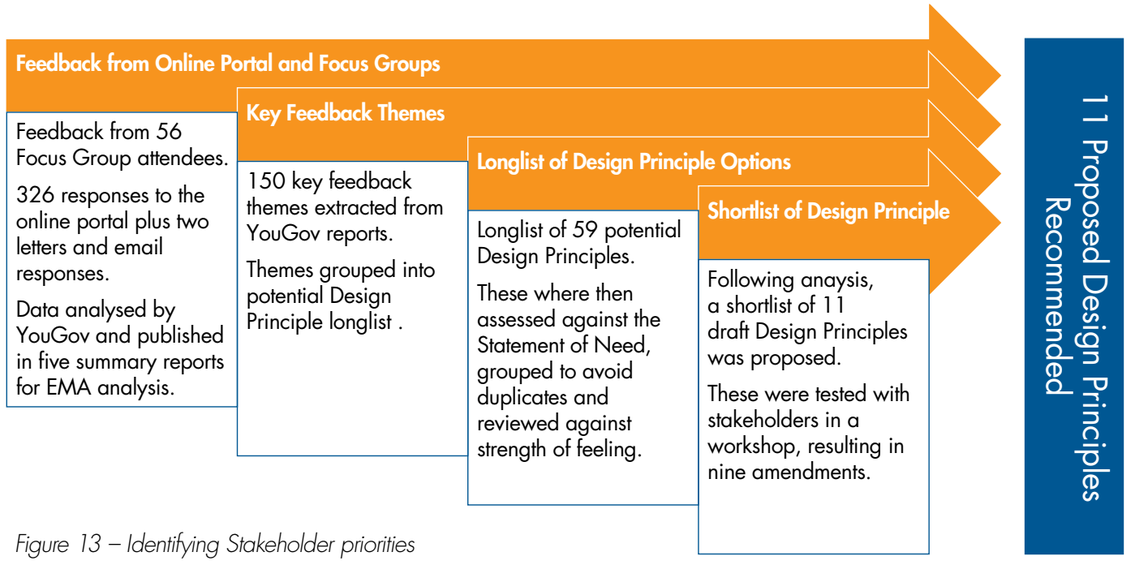


Figure 13 – Identifying Stakeholder priorities

The table below shows the shortlist of draft Design Principles developed following phase one engagement and the rationale for their selection.

	Draft Design Principle	Rationale
A	**Safety must take precedence over all other factors. Flight paths must be safe and cannot increase risk to airspace users, the airport or communities on the ground.**	All stakeholder groups were clear that safety has to be the most important factor in any airspace redesign. There is a strong view that no change is justified if it increases risk to aircraft or communities on the ground. All proposed new routes must be able to evidence that they maintain or improve current levels of safety, and no reduction will be acceptable. Stakeholders consistently identified safety as a priority in response to other questions. Safety is central to all operations at our airport, and is expected of us by our passengers, the public and our regulator.
B	**Any changes must align with the broader national airspace modernisation strategy, comply with national, international and industry regulations and legislation, and align with current and future ACPs in the FASI-North and FASI-South areas.**	There is strong support for the future airspace programme across all stakeholder groups. It is clear that people feel there are improvements and benefits to be delivered by the programme, but that any changes made in our airspace need to be integrated into a wider national network. There was also support across all groups as part of Question 10 for any changes made to comply with all relevant regulations and standards.
C	**New flight paths must ensure the continuation of services offered today and meet any future demand, in keeping with local and national planning policy, and the Government's policy on 'making best use' of airport capacity.**	In general comments made throughout the engagement exercise, stakeholders and communities are supportive of East Midlands Airport and the valuable role the airport plays in the region. Through responses to Question 10, all stakeholder groups strongly supported the need for the airport to be able to continue the services that it offers today and ensure that it is fit for any future demand. Some groups raised concerns that the central purpose of the programme was simply to facilitate growth, but in line with our statement of need, this is not the driving factor at East Midlands Airport.
D	**Flight paths should be designed to futureproof our airspace. They cannot be bound or constrained by existing arrangements, although current ways of flying should be assessed and, where appropriate, retained.**	There is strong support across all stakeholder groups for a fresh approach to airspace design, and stakeholders' responses to Question 1 indicate that our focus should be on designing the best routes (in terms of efficiency, emissions and noise) rather than maintaining the status quo. Responses to Question 5 indicated that to simply replicate current ways of working would hinder the ability for any benefits to be delivered as part of the airspace modernisation programme and, as such, a 'blank piece of paper' approach should be taken. However, many stakeholders highlighted that the rule book shouldn't be thrown out, and a careful review of current operating procedures should be carried out in order to retain those elements that maximise efficiency.
E	**Flight paths should, where possible, be spread out to avoid undue concentration of aircraft activity and share any noise impacts.**	Across most stakeholder groups there was a view in response to Question 2 that spreading flight paths out was the most equitable approach for communities as it helped to reduce the severity of noise impact by sharing the burden. Aviation stakeholders took a different view and felt that concentration was a better approach as it allowed for more predictable and simple routes that reduce complexity. Based on the strength of feeling and support from other groups, we have decided to favour the spreading out of flight paths, unless there are strong technical reasons as to why this is impractical.

	Draft Design Principle	Rationale
F	**Where flight paths have to overfly communities, we will consider existing noise in the local area, and will avoid flying over areas with relatively low ambient noise where it is practical to do so.**	There was a general preference amongst stakeholders in response to Question 3 for flight paths that consider the existing levels of noise on the ground, with most stating a strong preference for flight paths that overfly areas with higher levels of ambient noise where possible, to make the noise from aircraft less noticeable and reduce the impact on communities in quieter areas.
G	**The most sustainable flight paths that limit and, where possible, reduce emissions and impact on the environment should be implemented.**	All stakeholder groups expressed a strong preference for the Future Airspace Programme to play a role in reducing emissions and the long-term impact aviation has on the environment. Throughout responses and feedback to all questions, this was a key theme that emerged, with many saying emissions and environmental impact should be considered above the 'temporary' nuisance of noise. In response to Question 4 and Question 8 especially, stakeholders from all groups told us that they wanted to see flight paths designed that were the most sustainable and did as much as they can to minimise environmental impact.
H	**Flight paths should seek to limit and, where possible, reduce noise disturbance to communities – especially at night.**	Noise is universally understood to be the most noticeable impact East Midlands Airport has on communities and stakeholders. All stakeholders expressed the importance of the airport doing whatever is possible as part of the Future Airspace Programme to limit and reduce noise where possible. The feedback from the Independent Consultative Committee (ICC) was very strong in this area and this group in particular felt that noise should take precedence over all other environmental issues. Night noise is also something that all stakeholder groups raised as a key consideration for East Midlands Airport given the unique airfreight operation that takes place throughout the night. Whilst, on balance, responses to Question 4 and Question 8 suggest a preference to prioritising emissions reduction over noise, we feel that limiting and reducing noise, especially at night, should be a priority for this programme alongside the other Design Principles relating to environmental impacts.
I	**Our airspace should be open to all users; however, priority will be given to airport air traffic over other airspace users, except for emergency aircraft**	There was consensus from stakeholders that our airspace should be open to other users and this programme should not restrict the activities of the general aviation community. Responses to Question 6 did state a strong preference for efficiency and sustainability of flight paths to take priority, even if they make routes more difficult for older or smaller aircraft, but there was still a strong view that airspace should be open for all. The aviation community felt very strongly that the Future Airspace Programme should not reduce the amount of uncontrolled airspace available for general aviation and that, in doing so, would reduce the risk of infringements. The boundary of our controlled airspace will be decided by flight paths that deliver against our design principles, which may need more controlled airspace in some areas, but may also allow us to release some in others. All stakeholders agreed very strongly that priority must be given to the air ambulance and military aircraft. While this is accounted for in the Design Principle, it should be noted that emergency and priority military aircraft are already afforded higher priority than commercial aircraft. There was also agreement from all stakeholder groups that airport traffic should be prioritised over leisure aircraft.
J	**The latest navigational technology and most modern flying techniques should be utilised to improve route accuracy, reduce noise and reduce emissions.**	There is consensus across all stakeholders that the very latest technology and methods of flying should be utilised to make the airspace more efficient and sustainable. Community and business stakeholders felt strongly that newer technologies and approaches to flying could help to minimise noise and emissions. The aviation sector also agreed that modern navigation technologies would allow them to reduce fuel burn, emissions and noise. There was some suggestion that older aircraft may struggle to adopt some of this technology, but the balance of views in response to Question 7 and in wider feedback is that new technology should be embraced.
K	**Flight paths should, where practical, avoid areas that are especially sensitive to noise.**	The majority of feedback to Question 9, and throughout the broader engagement activities, was that to avoid overflight of all individual locations would prove impractical and could increase levels of emissions and noise from flight paths. However, there was a general preference for avoiding certain areas should be avoided if it is practical to do so. This issue will also be captured through our ongoing engagement, including Consultation at Stage 3 of the CAP1616 process, where we will find out more about any local characteristics or noise sensitive areas that we should consider.

Table 4 - Draft Design Principles

Longlist Draft Principles not selected

The table below shows the remaining balance of potential Design Principles generated following phase one engagement, along with the justification for them not being developed further.

Potential Design Principle	Rationale
Flight paths must maximise efficiency whilst minimising disruption to communities.	We believe this point was encompassed in Design Principles F and G
Flight paths must maximise efficiency and minimise emissions.	We believe this point was encompassed in Design Principle G
Emissions and noise should be reduced.	We believe this point was encompassed in Design Principles F, G, H and K.
Flight paths must be designed to maximise efficiency wherever possible.	We believe this point was encompassed in Design Principle G. Rather than disregarding any noise impacts or areas which a proposed route may fly over, we have proposed design principles which address these points. The final design principles will then be used in the round as a framework for the evaluation of the substantive design during Stage 2 of CAP1616, so as to ensure a balanced approach.
Flight paths to the West must be concentrated and routes to the East dispersed.	We believe this point was too specific to be a Design Principle on its own and would hinder exploration of the best possible routes. However, we feel Design Principles D, E and F allow for a flexible and dynamic approach that will be able to address specific considerations during Stage 2 of the CAP1616 process. In addition, this issue will be captured through our ongoing engagement, including Consultation at Stage 3.
Flight paths must avoid overflying new areas.	We believe that, on balance, the view was that reducing emissions, ensuring efficiency and reducing noise were given priority over overflying new areas and so we have not taken this Design Principle forward. However, we feel Design Principle F provides assurance on this point. In later stages, we will demonstrate a clear cost-benefit analysis, including metrics on noise and other environmental factors.
Flight paths that limit and, where possible, reduce noise and emissions from aircraft using the airport should be prioritised, appreciating this may limit some routes available to other airspace users.	The consideration of noise and emissions impacts is encompassed in Design Principles F, G, H and J.
Reducing the impact of noise should take priority over reducing emissions	Design Principles G and H address both noise and emissions impacts.
Flight paths must be concentrated to reduce the number of people impacted.	The balance of views was in favour of spreading out flight paths, as expressed in Design Principle E and sharing any impact of noise. This feedback is from the aviation community, who felt concentration is a less complex approach that makes airspace simpler. These views have been noted and will be considered when looking at the technical feasibility and safety of routes that are designed at Stage 2.

Table 5 - Longlist Draft Design Principles Not Selected

Themes that were not developed further

The table below shows the remaining balance of potential Design Principles generated following phase one engagement, along with the justification for them not being developed further.

Feedback	Rationale
Number of flights should be reduced to cut emissions	This is not proposed as a design principle because it is outside the scope of the airspace change process.
Cutting emissions should be priority, although if impact is not substantial then focus on reducing noise instead	This comment will be addressed by the evaluation of detailed designs against the final design principles during Stage 2 of the CAP1616 process.
Older aircraft and technology should be phased out by the future airspace programme	This is not proposed as a design principle because it is outside the scope of the airspace change process.
As a major freight hub, the airport should not disadvantage itself as many freight aircraft are older and may not have the latest technology	This is not proposed as a design principle because it is outside the scope of the airspace change process. However, we will take account of all stakeholders' views, including freight operators, during Stage 3 of the CAP1616 process.
Airlines should take responsibility for driving efficiencies	This is not proposed as a design principle because it is outside the scope of the airspace change process.
There should be a cap on routes that overfly the most affected areas	The principle of spreading routes to avoid a concentration of aircraft activity is addressed in Design Principle E. We do not believe it appropriate to include an explicit cap because it is impossible to avoid some areas local to the runway ends.
Commercial considerations should not be prioritised over communities	The CAP1616 process places community feedback at the heart of new route design. The views of the public and stakeholders have been used to create the Design Principles and all communities will have the ability to shape proposed routes in the public consultation at Stage 3.
New housing should be considered, and routes should be flexible to respond to ever changing development	This consideration is inherent in the CAP1616 process, which requires that future development is considered during the detailed design stage (Stage 2).
It is impractical to avoid specific locations.	This comment is addressed in Design Principle K.
Mitigation and soundproofing should be offered for affected communities	This issue relates to mitigation, rather than design and, as such, does not translate into a Design Principle. Our approach to sound insulation and mitigation schemes will be reviewed in light of future flight paths. In line with Government policy and other legal requirements, we will continue to offer support to those people living in the noisiest areas. The scheme in place at EMA is one of the most generous in the country and this would be extended to any newly impacted properties.
Comments and needs of stakeholders should be taken equally into account.	The CAP1616 process places community feedback at the heart of new route design. The views of stakeholders have been used to create the Design Principles and all communities will have the ability to shape proposed routes in the public consultation at Stage 3.
Environment should be a mandatory requirement	Design Principle G addresses this point.

Table 6 - Themes Not Developed Further

Feedback on Draft Design Principles

In the Phase Two engagement, YouGov conducted a stakeholder workshop to seek views on the draft Design Principles that EMA had developed. This workshop consisted of representatives from the four key stakeholder groups; general public, aviation, ICC and business, local government and environment, as set out in chapter 3. A recap of the Future Airspace Programme was given at this workshop to ensure a base level of knowledge for those stakeholders who had not taken part in the phase one focus groups.

Stakeholders were presented with the draft Design Principles and the rationale used by EMA to develop them. They were then asked the following questions:

- What are the potential benefits / challenges?
- Does it make sense that this principle has been included? Can you see the logic behind it?
- Is there anything you'd hone? Is there anything you think could be fine-tuned?

Following the stakeholder workshop, a detailed report was published by YouGov, documenting the feedback from stakeholders on the draft Design Principles. Stakeholders could see the logic in all of the Design Principles that were presented, although there were a number of requests for clarification and explanation of individual words and phrases in some. As a result of the stakeholder workshop, a number of changes were made:

- Ten Design Principles were amended
- A 'Reference Table' was developed to provide clarity on terms used in the proposed Design Principles.

Detailed feedback from the stakeholder workshops and the resulting action taken by EMA is shown below. The refined proposed Design Principles are shown on page 50.

In response to feedback from some stakeholders that referencing the draft Design Principles A-K suggested a hierarchy, EMA applied a new referencing system based on the principle themes:

S – Safety
A – Airspace users
T – Technology
P – Programme
E – Emissions
C – Continuity
N – Noise

	Draft Design Principle	Feedback	Action
S	Safety must take precedence over all other factors. Flight paths must be safe and cannot increase risk to airspace users, the airport or communities on the ground.	When tested with stakeholders, many thought this principle represented a common-sense approach and needed to be the starting point for any change. There was some question about whether the use of 'cannot increase risk' may be too strong and if there were in fact circumstances where a slightly higher risk profile could be acceptable. Most stakeholders felt that it was right this principle was absolutely clear that there could be no compromise when it comes to safety. The principle was amended to remove the reference to 'increasing risk'. In addition, definitions for safety and airspace users were added to the reference table in response to calls for clarity from stakeholders about both of these terms. Some stakeholders also asked about the safety standards used in aviation. Design Principle P (contained within table 8) sets out a requirement to comply with regulations and standards. Some aviation stakeholders queried whether the word 'all' should be inserted into the design principle to make it clear safety applied to everyone using the airspace. This was not added as the definition for airspace users in the reference table makes this clear.	Amended
P	Any changes must align with the broader national airspace modernisation strategy, comply with national, international and industry regulations and legislation, and align with current and future ACPs in the FASI-North and FASI-South areas.	Stakeholders agreed that it is vital for any changes made at EMA to fit into a larger national airspace system, and that they must comply with national and international standards and regulations. Whilst some stakeholders queried whether 'fitting in' with the northern and southern implementation programmes could be a constraint for EMA, stakeholders ultimately felt that the national system had to mesh together and operate as one piece of national infrastructure. As the Future Airspace Programme moves through to the technical stages, any changes made in order to fit-into national changes will be highlighted for transparency. Some questioned which standards and regulations the airport has to comply with and, whilst it is not possible to fit all of these into a principle, more information on safety regulations and standards has been included on the back page of this report for information. In addition, a question was asked about how EMA would take account of future airspace change proposals. In response, the principle was amended to provide clarity on this point, and to remove acronyms.	Amended

Feedback on Draft Design Principles
continued

	Draft Design Principle	Feedback	Action
C	New flight paths must ensure the continuation of services offered today and meet any future demand, in keeping with local and national planning policy, and the Government's policy on 'making best use' of airport capacity.	There was broad support for this principle and stakeholders stated that the airport must be able to continue the operations available today and to meet future needs. Some clarity was requested regarding how future demand was calculated. To address this, the reference table sets out the EMA definition of future demand, as set out in the airport Sustainable Development Plan. Whilst some stakeholders questioned the feasibility of keeping up with Government policy in uncertain political times, there was a consensus that all airports in the country would have to comply with the policies set by the Government of the day. Some stakeholders asked for more clarity on the term capacity and so the principle has been amended to provide this additional information. A link to the Government's Aviation 2050 policy document is also included in the reference table.	Amended
A1	Flight paths should be designed to futureproof our airspace. They cannot be bound or constrained by existing arrangements, although current ways of flying should be assessed and, where appropriate, retained.	When tested with stakeholders, the draft principle was seen as confused and contradictory. Many felt that the most important thing was that the airport focused on designing the best routes for the future. Regarding existing arrangements, stakeholders felt that reviewing and retaining elements was in itself a constraint and if there were any routes or practices in use today that delivered these design principles then they would likely be re-introduced as part of this exercise. As such, this principle was amended to provide more clarity to the airspace designers that the best possible routes (delivering against these design principles) should be designed irrespective of existing arrangements. There was also a request for clarity on the term 'futureproof'. This has been provided in the reference table.	Amended
A2	Our airspace should be open to all users; however, priority will be given to airport air traffic over other airspace users, except for emergency aircraft	Stakeholders viewed this principle as sensible and fair, supporting the desire to keep airspace accessible for all users, especially emergency aircraft. In response to some stakeholder requests for clarity, the Design Principle was amended to make it clear that access to EMA's controlled airspace would only be for authorised aircraft. In addition, stakeholders asked for more clarity to be provided on how EMA was defining emergency aircraft and airspace users. A definition for airspace users and emergency aircraft has been included in the reference table to address this. Some aviation stakeholders asked for clarity on what changes there would be to EMA's controlled airspace boundary. This will become apparent during the evaluation of detailed designs against the final design principles during Stage 2, and the consultation undertaken during Stage 3, of the CAP1616 process.	Amended
E	The most sustainable flight paths that limit and, where possible, reduce emissions and impact on the environment should be implemented.	Stakeholders supported this principle and were surprised this was not something already mandated by Government. Some stakeholders asked whether this Design Principle should be strengthened to include the word 'must' rather than should. In order to maintain the ability to balance principles in the Stage 2 assessment, this change was not made. This decision is also supported by stakeholders who highlighted that, whilst reducing emissions is key, if the reduction is not significant then the priority should be reducing noise impacts. At stage 2, the impacts on noise and emissions will be assessed and, in line with paragraph B.29 in Appendix B of CAP1616, the Government's altitude-based priorities will be consulted. Some stakeholders also asked why there were multiple Design Principles suggested for noise but only one for emissions. The emissions Design Principle seeks to reduce emissions where possible and can be applied to all flight paths. Multiple noise principles have been suggested for noise as there are multiple options for reducing noise, such as dispersing aircraft, avoiding certain areas etc. There was some question around whether this principle was aiming to reduce emissions or all environmental impacts (such as noise pollution). In response to this, the principle has been amended to make it clear that this principle seeks to limit and reduce emissions. A definition for emissions has also been added to the reference table. Noise is addressed in Design Principles N1, N2 and N3, shown in table 8.	Amended

Feedback on Draft Design Principles
continued

	Draft Design Principle	Feedback	Action
N1	Flight paths should, where possible, be spread out to avoid undue concentration of aircraft activity and share any noise impacts.	Stakeholders generally supported this principle and stated that it reflected a fair and balanced approach. Some wanted to see more information about where flight paths would be plotted, the time of day, frequency, and the level of noise reduction that could be achieved. Whilst this level of detail is not available at this early stage, these details will become clear following the technical assessments in Stage 2 and will be highlighted as part of the consultation in Stage 3. On balance, 'sharing the burden' of noise was viewed as a fair and equitable approach. Some stakeholders commented that any impact on emissions should be considered when looking at the spreading out of routes. This is addressed by the inclusion of Design Principle E, shown in table 8. Aviation stakeholders also stated that they understood the view that spreading flight paths was 'fairer' although maintained the view that there may be times when concentration would be required for safety or technical reasons. The Design Principle was amended to provide more clarity and to introduce 'where practical' into the principle to safeguard for when safety or technical reasons mean that spreading out flight paths is not possible.	Amended
N2	Where flight paths have to overfly communities, we will consider existing noise in the local area, and will avoid flying over areas with relatively low ambient noise where it is practical to do so.	There was agreement that this principle was appropriate and justified. Some stakeholders asked for greater clarification/ explanation of how existing levels of noise would be assessed; a point that will have to be made clear in the options assessment. There was a suggestion that the difference between ambient daytime and night-time noise should be explicitly called out in this principle, however, when viewed as a whole set, EMA believes that this principle taken alongside Design Principle N3 addresses the concern about night noise. Some stakeholders also questioned whether there was a safety implication to this principle as it could lead to some more densely populated areas being overflown. This is addressed by Design Principle S. Some stakeholders commented that the wording of this principle was too vague and non-committal. In response to this, EMA removed the phrase 'where practical' to provide a more firm statement. A question was also asked whether the noise principles could be combined. EMA reviewed all of the noise principles and felt that combining them into one principle would be less effective as each principle addresses a different element of aircraft noise.	Amended
N3	Flight paths should seek to limit and, where possible, reduce noise disturbance to communities - especially at night.	This principle was met with support from stakeholders, with many stating the importance of calling out the specific focus on reducing night noise. Stakeholders felt that this principle allowed a dynamic approach to be taken by the airport when designing routes; looking at various routes to match times of day, seasons, work patterns etc. Some clarity was requested around the terms 'limit' and 'night'. Definitions have been included in the reference table. Some stakeholders also asked what techniques could be used to reduce noise, and how this will be measured. This is too much detail to define in a single principle and would hinder the ability of the technical designers to look at all possible options. All options and possible methods of reducing noise will be set out at Stages 2 and 3 when stakeholders and the public will be able to review and feedback on detailed design options. A question was asked about whether this Design Principle wording could be strengthened to include 'must' and 'not increase'. As with the emissions principle, this change was not made as EMA felt it was important to maintain the ability to balance principles in the Stage 2 assessment.	Unchanged
N4	Flight paths should, where practical, avoid areas that are especially sensitive to noise.	This principle was met with mixed reactions from stakeholders. Whilst many could understand what was trying to be achieved, some felt that identifying areas as 'especially sensitive to noise' was very subjective and a comprehensive list could not be developed before the consultation phase. The principle was amended to reference locations rather than areas, making it easier to pin-point locations that should be avoided if practical to do so. In addition, a definition for 'areas especially sensitive to noise' was added to the reference table to respond to stakeholders' request for more clarity on this phrase.	Amended
T	The latest navigational technology and most modern flying techniques should be utilised to improve route accuracy, reduce noise and reduce emissions.	When tested with stakeholders, this principle was broadly supported, and many felt this was a common-sense approach. There was a request for some clarity on which navigational technologies this principle relates to and so a definition has been added to the accompanying reference table. There was also a query as to whether this principle could conflict with Design Principle A2 as the very latest technology or techniques may not be available for all types of airspace users. As such, the wording was amended to make it clear that this principle should reflect the most modern and widely available technology and methods of flying.	Amended

Table 7 - Feedback On Draft Design Principles

Proposed Design Principles

The below proposed Design Principles have been developed after detailed and in-depth two-way engagement and are, EMA believes, representative of the priorities of local stakeholders and members of the general public.

S	Safety must take precedence over all other factors. Flight paths must be safe for airspace users, the airport and communities on the ground.
P	Any changes must align with the broader national airspace modernisation strategy, comply with national, international and industry regulations and legislation, and align with current and future Airspace Change Programmes in the north and south of the UK through involvement in the Future Airspace Strategy Implementation groups.
C	New flight paths must ensure the continuation of services offered today and meet any future demand, in keeping with local and national planning policy, and the Government's policy on 'making best use' of existing runway capacity.
A1	Flight paths should be designed to futureproof our airspace and cannot be constrained by existing arrangements.
A2	Our controlled airspace should be open to all authorised users; however priority will be given to airport air traffic over other airspace users, except for emergency aircraft.
E	Flight paths that limit and, where possible, reduce emissions should be implemented.
N1	Flight paths should, where practical, be spread out to avoid concentration of aircraft activity to share any noise impacts.
N2	Where flight paths have to overfly communities, we will consider existing noise in the local area, and will select flight paths to mitigate effects on areas with relatively low levels of ambient noise.
N3	Flight paths should seek to limit and, where possible, reduce noise disturbance to communities - especially at night.
N4	Flight paths should, where practical, avoid locations that are especially sensitive to noise.
T	Flight paths should be designed using the latest, widely available navigational technology and flying techniques.

Table 8 - Proposed Design Principles

Design Principle Reference Table

Term	Definition
Air Navigation Technology	Technology (both aircraft and air traffic control) that relates to air traffic services, including communication, navigation and surveillance.
Airspace Users	Scheduled airlines, charter companies, cargo and air freight service providers, military aircraft, the business and leisure aviation sectors, general aviation and all other forms of authorised air travel, including air ambulance.
Ambient noise	The level of non-aircraft background noise in an area (e.g. road traffic, industry etc.)
Areas Especially Sensitive to Noise	Sites of tranquility (e.g. National Parks and Areas of Outstanding Natural Beauty) and other locally identified locations that are identified through community engagement.
Capacity	The maximum number of air traffic movements that can be facilitated using the airports existing infrastructure.
Efficiency	A route or operating procedure that improves travel time whilst reducing emissions.
Emergency Aircraft	An aircraft which is responding to a life-threatening emergency (e.g. Air Ambulance) or an aircraft that has declared an emergency on board.
Emissions	The carbon dioxide emissions produced from aircraft.
Future Demand	EMA publish future demand forecasts as part of the five yearly Sustainable Development Plan. The current plan can be viewed on the airport website.
Futureproofing	Making sure the airspace is designed in a way that can meet the needs of today and also still be used in the foreseeable future, even if technology changes.
General Aviation	Any form of civil aviation that is not large-scale passenger or freight operations.
Government policy on 'Making Best Use' of runway capacity	Government published 'Beyond the Horizon: the future of UK aviation' in June 2018, supporting UK airports to utilise the runway capacity that is available, in preference to building new infrastructure.
Limit	A point or level beyond which something may not pass
Night	The hours between 11:00pm and 07:00am (as set out in EMA's Noise Action Plan).
Safety	Keeping the risks associated with aviation systems and activities reduced and controlled at an acceptable level.

Table 9 - Design Principles Glossary Of Terms

6 Next steps

Moving to Stage Two

The proposed Design Principles have now been submitted for review by the CAA to ensure that they are a well-founded set of principles to inform the development of airspace design options in line with EMAs Statement of Need.

Subject to approval by the CAA, EMA will move to Stage 2 of the CAP1616 process, where a comprehensive list of flight path options will be developed. An initial appraisal of flight path options will then be undertaken, including qualitative assessments of the different options, high-level noise and environmental assessments and other cost and benefits assessments.

Those stakeholders who contributed to Stage 1B will then be engaged further to help EMA complete an initial evaluation of the flight path options against the Design Principles. Following this engagement, a shortlist of flight path options will be submitted to the CAA in conclusion of Stage 2 and EMA will move to Stage 3 of the CAP1616 process – the public consultation.

Stage 3 will include a full appraisal of the options that are put forward, as set out in CAP1616. Stage 3 will also represent the largest public consultation ever undertaken by EMA and will give stakeholders and communities across the region the opportunity to review, refine and shape the final flight paths that will be implemented in EMA's future airspace.

Stakeholder Reference Group

East Midlands Airport wants to ensure that the methods used to engage with stakeholders and supporting materials (particularly at Stage 3 of the CAP1616 process) are accessible, easy to engage with and relevant.

This is why the Stakeholder Reference Group (SRG) has been established, to sit as an independent body throughout the Future Airspace Programme and help to co-create and oversee a thorough and inclusive engagement strategy for public consultation at Stage 3.

In addition, the SRG will play an important role in critiquing EMAs use of the information gathered as part of the Stage 3 public consultation and making sure views have exerted genuine influence on the future flight paths put forward to the CAA for approval.

Keeping in Touch

The future airspace programme is a significant project and will be running for some time. We would like you to stay in touch so we can keep you up-to-date with any development as EMA passes through the different stages of the CAP1616 process. Please email futureairspace@eastmidlandsairport.com with the following information and the Future Airspace team will add you to the mailing list:

- Your name
- Your postcode
- Your email address or postal address

7 Assurance statement from The Consultation Institute

The Consultation Institute has overseen East Midland Airport's (EMA) engagement on design principles, at Step 1B of CAP1616 and endorses its approach.

This has involved reflecting on the engagement strategy prepared by EMA based on the advice the Institute has provided to it directly and to its sister airports within the Manchester Airport Group (MAG), Manchester Airport (MAN) and Stansted (STN), and then their implementation.

We have also examined documentation, reports and other inputs. We have not been able directly to observe any of the Workshops or Focus Groups, however we did attend (by conference call) an internal EMA decision-making workshop regarding the draft Design Principles on 23 October, and subsequently its review session on 13 November.

Early in EMA's ACP, in February 2019, we provided guidance to the MAG team working on ACP across each of the three airports on the best practice approach to Step 1B at a three-way workshop.

At EMA this was followed by the delivery of a Stakeholder Mapping workshop to provide a systematic methodology to inform the development of EMA's Step 1B Engagement Strategy. Thereafter, working at a mainly arms-length distance with EMA, this procedure is predominantly retrospective. Throughout the process the main points of contact have been the ACP Project Manager and Director of Corporate Affairs. The elements of engagement have been conducted by a third-party supplier, YouGov. Its work has been found to be of a superior quality, thorough and robust. The reports produced are well reasoned, written in clear and accessible language, thereby offering sound evidence of the successful engagement.

The work previously conducted at the group level at MAG has provided EMA with clear a consistent group approach. The work at neighbouring sister airport, MAN, has also given EMA a road map and learnings to adapt the approach and tailor it to meet the regional differences of EMA, including it being a smaller airport in passenger numbers, yet the UK's second largest cargo operator.

For EMA we provided direct advice and guidance, endorsing the following elements:

- Stakeholder Identification and Mapping
- EMA Step 1B Engagement Strategy
- Development of Design Principles
- Stakeholder and Public Engagement Reporting
- Establishment of a Stakeholder Reference Group (SRG), as an additional safeguard through local representative voices, asked to concentrate on the process alone.

For MAG and MAN we had provided direct advice and guidance on the following elements; this advice and guidance was then directly applied to EMA without intervention from the Institute:

- Objectives
- Risk identification
- Brief for research agency
- Stakeholder Engagement Methodology
- Planning and timetabling of activity
- Documentation and reporting

The Institute is satisfied that the approach taken aligns with our best practice standards and has been delivered with a high degree of professionalism. We believe that the responses and inputs from stakeholders (at Workshops), the general public (through carefully recruited Focus Groups) and others - online and through 'business as usual' listening - in two iterations, has been successfully captured in this report and the supporting documents; the resulting Design Principles therefore, to our satisfaction, comply with the Statement of Need, and Engagement Strategy , and are consistent with the requirements of CAP 1616.

Report Glossary

ACP	Airspace Change Programme
AOA	Airport Operators Association
ATC	Air Traffic Control
CAA	Civil Aviation Authority
DfT	Department for Transport
EMA	East Midlands Airport
FASI-North	Future Airspace Strategy Implementation North
FASI-South	Future Airspace Strategy Implementation South
Flight paths	The routes used by aircraft inside EMA's controlled airspace
ICC	Independent Consultative Committee
MAG	Manchester Airport Group
MAN	Manchester Airport
Stakeholder	An interested third party in an airspace change proposal. Includes directly affected local aviation stakeholders, members of the National Air Traffic Management Advisory Committee, relevant national organisations and communities affected by potential impacts (such as noise or economic growth) associated with the change
SRG	Stakeholder Reference Group
STN	Stansted Airport
tCI	The Consultation Institute

Regulations

East Midlands Airport (EMA) falls within the scope of the European Aviation Safety Agency (EASA) and therefore is subject to a number of regulations, which include:

- Aerodrome regulations in the form of Implementing Rules (IR), Acceptable Means of Compliance (AMC) and Certification Specifications (CS).
- The European Commission published Commission Regulation (EU) No 139/2014. The regulation contains the Implementing Rules that cover all EASA aerodromes.
- EASA Acceptable Means of Compliance (AMC) and Guidance Material (GM) to Authority, Organisation and Operations Requirements for Aerodromes.
- EASA Certification Specifications (CS) and Guidance Material for Aerodrome Design CS-ADR-DSN.

MAG East Midlands Airport

Be part of the conversation

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The contents of this publication are the sole responsibility of East Midlands Airport and do not necessarily reflect the opinion of the European Union.

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