Monday 30th September 2019

Manchester Airport: Future Airspace Research

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Report structure:

Background, sample and method

Background, aims and objectives

- Manchester Airport is one of the UKs major international gateways and a key contributor to the regional and national economy. As part of Government proposals to modernise the way UK airspace is managed, Manchester Airport will soon be undertaking an extensive process of engagement and consultation with stakeholders and local communities. Over the course of the next few years Manchester Airport will bring together NATS, the CAA and other airports to shape the airspace design on which it will formally consult (likely in 2020). Before this, it will be important to speak to individuals, organisations and groups that have an interest in the airspace around Manchester Airport to provide feedback on principles that will be used to redesign the airspace, as part of the overall programme.

- The research will seek to capture feedback from a range of interested parties to ensure that Manchester Airport has a clear understanding of the views of all its major stakeholder groups, and that the design principles that emerge are properly understood and fit for purpose. This will set the foundations of the future airspace work.

- The key aims and objectives of the research are to:
  - Ensure that Manchester Airport have complied fully with the requirements of the CAAs CAP1616 process regarding engagement in Stage 1B.
  - Ensure that Manchester Airport has a strong understanding of the views of its stakeholder groups, to inform the subsequent stages of design and development.
  - Ensure that the design principles that emerge are properly understood, are consistent with the statement of need, support operational requirements, and allow Manchester Airport to continue to grow safely and efficiently.
  - And, ensure that the design principles that emerge are checked and validated with stakeholders from the focus groups with a proper understanding of the associated impacts, via a second phase of workshops.

Sample and method

- YouGov conducted 11 x 2 hour extended F2F focus groups with key stakeholder groups, identified by Manchester airport. Focus groups took place between 4th and 24th September 2019. The stakeholder group specification is outlined below.

General Public
Living close to MAN, not overflown

Care
All working in healthcare, care or charities

Elected Reps
All members of district, local and parish councils

Aviation
Directly affected on-airport stakeholders

General Public
Living close to MAN, currently overflown

Community Reps
All representatives of local community

Leisure
All members of regional leisure groups

Aviation
Directly affected off-airport stakeholders

Business
All in regional / local business / development organisations

Elected Reps
All members of district, local and parish councils

Special Interest
All members of regional special interest groups

Perceptions of Manchester Airport

Stakeholders have a range of key associations with Manchester airport, both positive and negative

Positively, Manchester Airport is considered to a ‘hub’, bringing prestige, employment and economic benefits to the region

MAN is part of UK infrastructure

It’s an international airport – the largest outside of London – that plays a key role in the UK airspace infrastructure. It allows residents of the north west to access domestic / international flights and it is a gateway to international travellers, opening up the north west to a wide range of visitors, students and workers.

It’s brings prestige to the region

Particularly for the business group, MAN is seen as an economic ‘hub’ that draws business to the area. Having an international airport opens up opportunities for international business / trade, helping to fuel the economy in the north. As one of the biggest UK airports, it brings a sense of prestige to the region for many in the groups.

It’s a major local employer

It’s seen as a big economic contributor to the region, offering jobs to a large number of local residents. As well as employment opportunities on campus, it offers opportunities through associated businesses (e.g. Amazon, DHL), and service industries. It also offers work experience opportunities for young people, which is a benefit.

It’s convenient for locals

Given its location, it’s seen as a much more convenient option than international airports in the south - it allows local people to travel with ease. Serviced by public transport (esp. rail and tram) and road, it is considered to be accessible for most. The relatively small size of the site means that passengers find it easy to negotiate.

Negatively, Manchester Airport is linked to noise and air pollution, and some accessibility challenges

Noise pollution concerns

Particularly for those living close to the airport – and currently overflown – noise is a key challenge. Noise is particularly disturbing in summer time and at night. Those living close to the airport bear the brunt of noise pollution (esp. at take off and low altitudes) and there is strong resistance to the airport by some general public / community groups as a result. There are concerns about (perceived) increases in flights, and potential for further increases in future.

Air pollution challenges

With increased media coverage of global warming / the environment, it is becoming part of the public consciousness and many are concerned about air pollution and emissions. Some of those living near the airport comment on the smell of aviation fuel and many – across groups – question air quality. Those working in Care and Special Interest are particularly conscious of the health / environmental impacts of air pollution on the local area.

Access issues raised

While MAN is accessible by road, rail and tram there is some kick back at congestion on access roads at peak times, which can impact travel in the surrounding areas. Some also call out challenges with flooding on the bypass, which can cause queues and long delays. There is also negativity at the parking charges and the drop-off charges, which are felt to be prohibitive. This has resulted in illegal parking in residential areas surrounding the airport, impacting residents.

While Manchester Airport is considered to be a 'good neighbour' to local communities, there are some challenges to address

In many ways MAN is a good neighbour: many acknowledge that Manchester airport brings a lot of benefits to the area, and to the communities surrounding the campus. For most, it's employment that's the greatest benefit, along with connectivity (to domestic / international cities), and convenience.

"It's a major employer locally, a. huge economic contributor"
Business

Noise / air pollution are the biggest frustrations: those living close to the campus or under flightpaths say that noise is a constant challenge that impacts their daily life, whilst poor air quality is also commented on. The impact of pollution on health (e.g. poor sleep, asthma) is a concern, esp. for those with children.

"We are directly under flight path – noise – it's impossible to speak when in the garden"
General Public

MAN initiatives can be better publicised: stakeholders with relationships with MAN welcome partnership working / outreach, and community groups are positive about community fund grants. However, many want to know what MAN are doing to mitigate noise / emissions, which can be promoted more widely.

"Good community outreach – there is a two-way conversation"
Elected Rep

Perceptions of the Future Airspace Programme

Stakeholders were shown a video to explain the Future Airspace Modernisation programme, and shown a map of the area included in step 1B of the process…

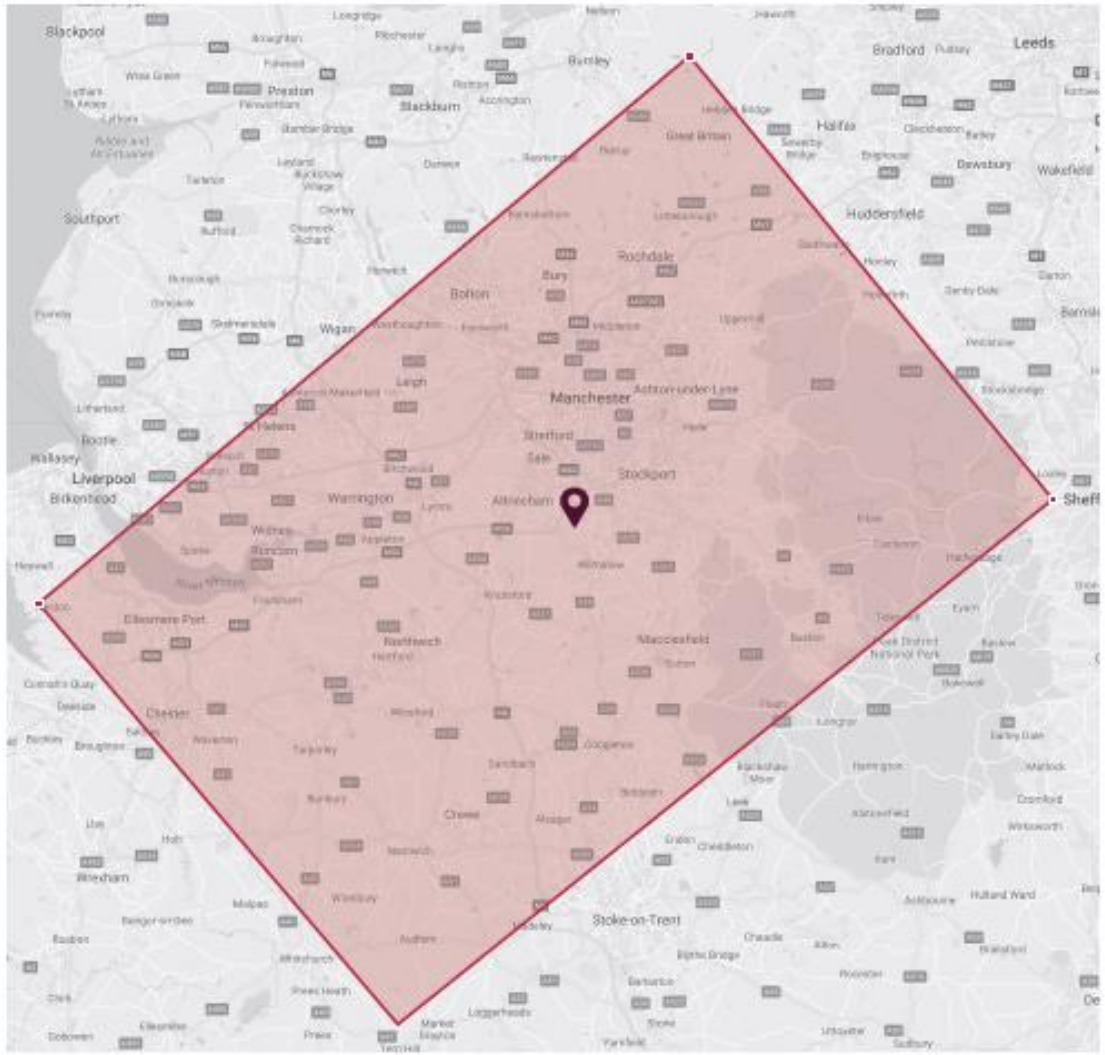
Manchester Airport area

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

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

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

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



Most can understand the reasons for the Future Airspace Programme and can see the benefits, but some questions arise

Increased efficiencies: most can see that there is a benefit to reassessing the current airspace network. This will allow airports to identify opportunities for greater efficiencies, which will lead to benefits for passengers (e.g. quicker flights).

A fit-for-purpose system: they recognise that the programme will take routes developed 40+ years ago and adapt them to ensure they're more fit-for-purpose. By conducting a review of airspace, it's expected that changes can be made to ease congestion / improve efficiencies.

Tackling emissions: with increased media coverage about the environment / global warming, the public is becoming more aware of the need to take action. Many expect a more efficient airspace to result in reduced emissions, tackling this challenge head on.

Increased capacity: the more cynical stakeholders question whether the programme is simply a way to increase capacity in order to increase flights in future. While they recognise the passenger benefits of this, the environmental impacts are a key concern.

More noise / emissions: changing routes may reduce pollution with more efficient flight paths, but increased flights will likely cancel out this benefit. New routes – however efficient they are – may lead to noise being spread more widely across areas, impacting more people.

Impacting communities: with a greater volume of flights, and the potential for new routes where new areas will be overflown, there is concern about how it will effect communities on the ground. Consulting communities will be essential to ensure buy-in.

Some struggle to align the need for progress, with the need for a more responsible view on emissions / the environment

The Future Airspace Programme is the next step…

All agree that it is a positive step – 'the next step' – on a path to progress, and can see the rationale behind it. A redesigned airspace is expected to improve efficiencies and result in a more effective system for passengers, airlines and airports alike, and will bring a range of benefits to all parties involved.

... But they struggle to align it to governmental emissions targets

With the environment so much in the public consciousness, many struggle to see how this aligns with targets on cutting emissions, when capacity is likely to increase over time. In light of the environmental challenges faced by the country, some feel like this is a backward step.

1B Design question review

Ten design questions were shown to stakeholders

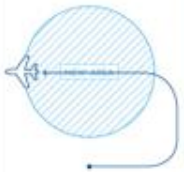
1. Avoid change or fly over new areas

Option 1

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

Option 2

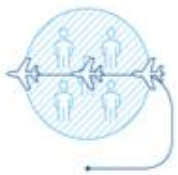
Design the best possible routes (taking account of noise, emissions, efficiency and other relevant factors), even if this means flying over new areas.



2. Concentrating / spreading out flight paths

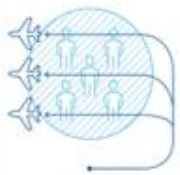
Option 1

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



Option 2

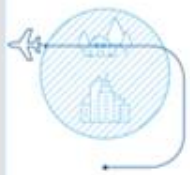
Spread out flight paths, which will affect more people but to a lesser extent.



3. Avoiding built up areas

Option 1

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



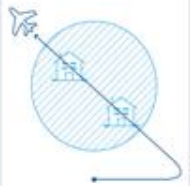
Option 2

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

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.

9. Areas to avoid flying over

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

5. Taking account of current arrangements / agreements

Option 1

Continue with current arrangements and ways of operating.

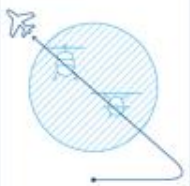
Option 2

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

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.

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.

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.

10. Meeting requirements

Meeting requirements

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

1. **Safety** – all new flight paths must meet all required safety standards.
2. **Industry standards and regulations** – industry standards (usually set internationally) or regulations apply to some aspects of how aircraft fly. All new flight paths must meet these legal obligations.
3. **Consistent with the national system of aircraft routes** – our new flight paths will become part of a new national network of routes, so they will need to take account of flights to and from other airports. As our flight paths will only be designed to 7,000 feet, they will also need to join up with national aircraft routes at higher altitudes.
4. **Maintaining and improving our airport** – Manchester Airport is a busy international airport which continues to grow to provide the services our customers need. In line with the Government's policy of 'making best use of our nation's airports, our new flight paths should allow us to provide the services that we offer today and meet any future demand from customers (within the limits set by any planning conditions).
5. **Keeping to government policy** – UK airspace is amongst the busiest in the world. To tackle the issue of congestion, the Government instructed the CAA to develop an Airspace Modernisation Strategy (AMS) (CAP 1711), which was published in December 2018. Our design principles must take account of government policy on aviation, and reflect the requirements of the Airspace Modernisation Strategy.

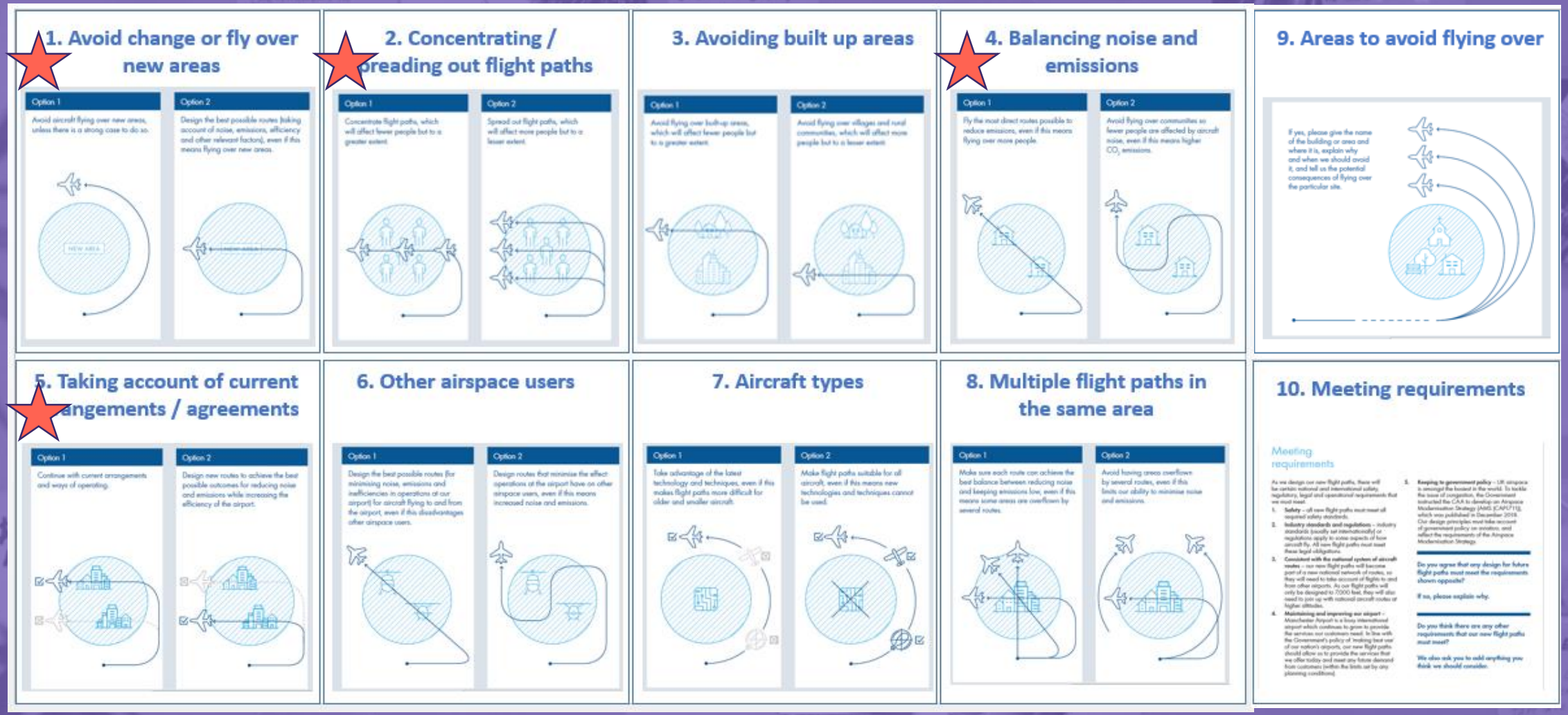
Do you agree that any design for future flight paths must meet the requirements shown opposite?

If no, please explain why.

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

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

Q1, 2, 4 & 5 are seen as priority questions for MAN across all groups



N.B. Q1 selected by 5 stakeholder groups, Q2 by 4 stakeholder groups, Q4 by 6 stakeholder groups and Q5 by 3 stakeholder groups

Question 1

Avoid change or fly over new areas

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

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

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

- prioritise keeping changes to a minimum to avoid flying over new areas (unless there is a strong reason to do so); or
- start with a 'clean sheet' and design new routes that might reduce the effect of aircraft noise, cut emissions and make better use of modern technology, but might fly over new areas as a result.

Please indicate your preference below

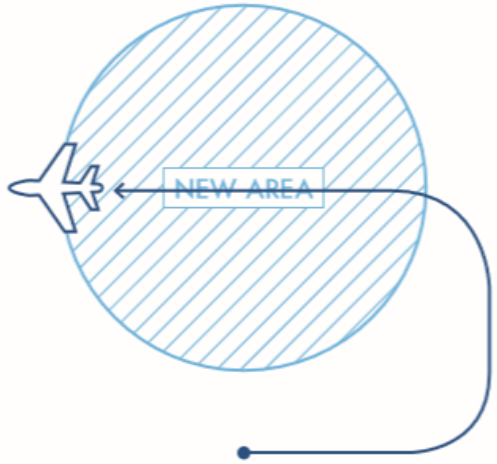
When we design our flight paths, which option below do you prefer and why?

Option 1

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

Option 2

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



Question 1 Summary: Avoid change or fly over new areas

Views on the principle

Across groups, a majority take a 'clean slate' stance – in updating the airspace and looking to futureproof it, all viable options should be considered. Where positive changes can be made to cut noise / emissions and drive efficiencies, these should certainly be open for consideration.

Preferred option

Option 2 is the preference for most, who agree that change is necessary in order to make the most of the opportunity for airspace redesign. However, for some, esp. the Community group, this comes with the caveat that any changes made should be clearly beneficial – they oppose change for change's sake.

Additional information required

Some need to know more about the severity of noise impact, and Aviation representatives mention that the speed at which aircraft reach 7,000ft will impact on the noise produced. In Elected representative groups there is also need for reassurance that flying over new areas will not equal uncapped opportunity for expansion.

Differences by groups

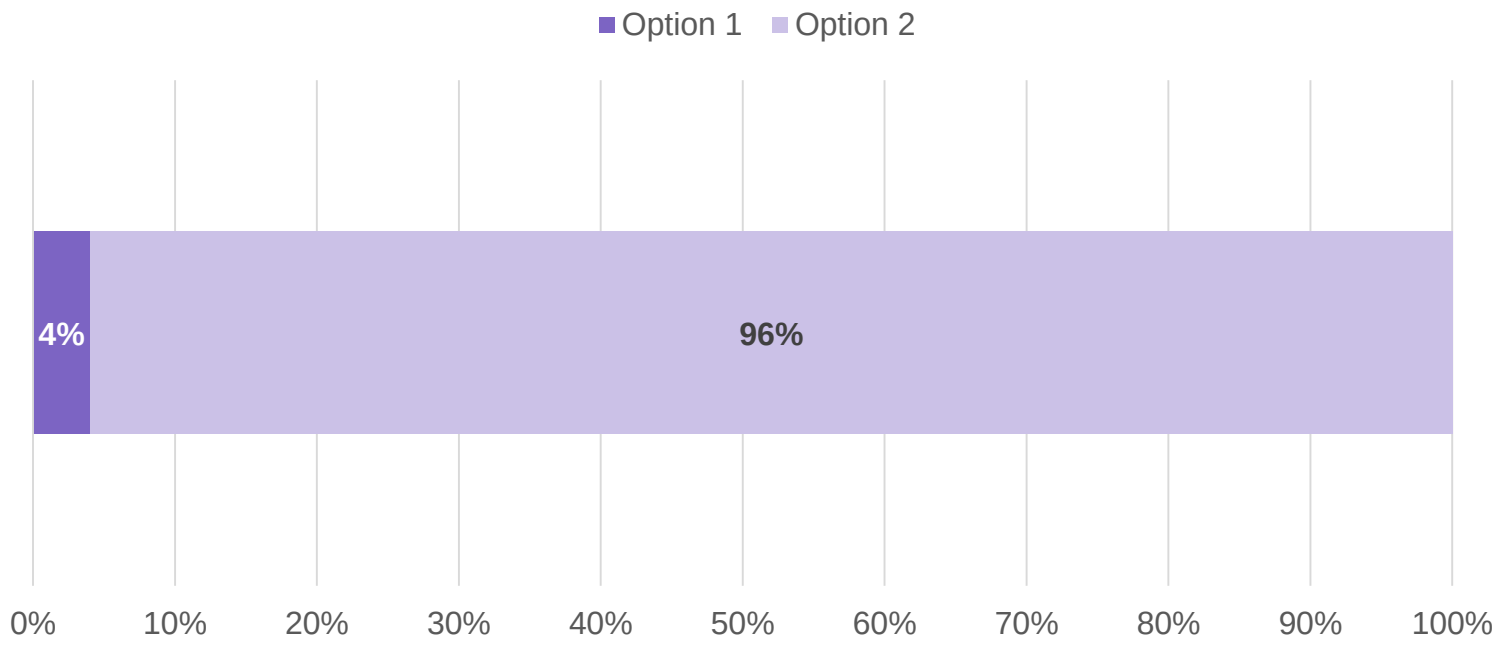
Key differences exist between those currently unaffected / affected by flight paths – esp. General Public and Elected Reps. Changes to airspace could mean fewer flights overhead for some, which would be a positive – however those not currently affected worry they may face disruption should things be left open to change.

Overall, Option 2 is the preferred route for question 1

Avoid change or fly over new areas

Option 1 *– Avoid aircraft flying over new areas*

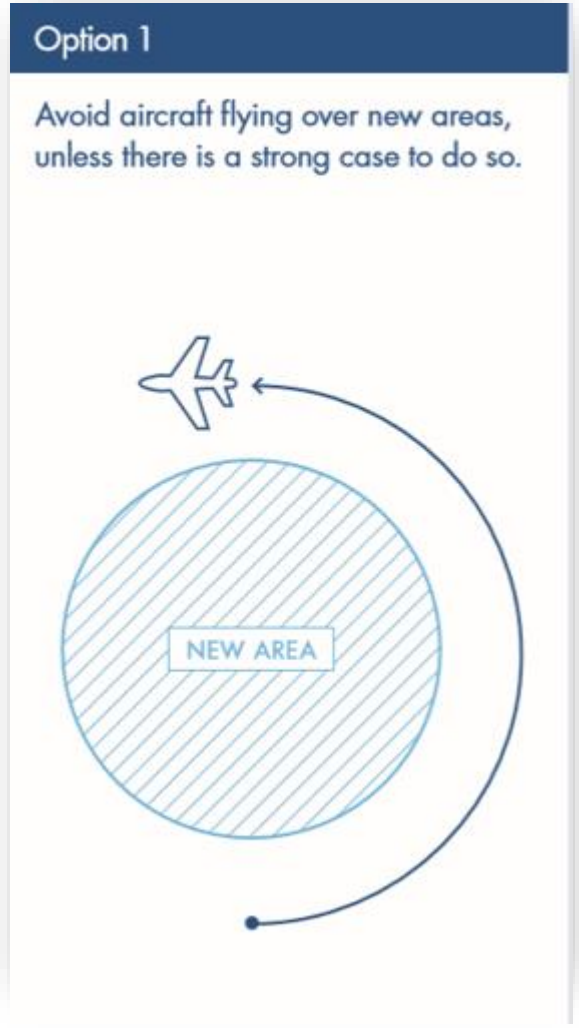
Option 2 *– design the best possible routes, even if this means flying over new areas*



N.B. figure is based on responses on self-complete forms completed by stakeholders in the groups

Option 1 undermines the redesign exercise, but keeps the peace with local communities

- **Those not currently overflown worry about noise**
  - Naturally, many worry they'll become overflown if airspace is redesigned
  - Many want more information about which areas would be impacted and to what extent
  - There are concerns about how this might impact their daily lives, and their ability to sell their homes in future
- **Avoiding new areas avoids conflict – key for many**
  - This option avoids disruption to local communities, and so minimises backlash
  - Those already overflown may cope better with noise - they are already used to it to an extent – and are less likely to be affected
- **However, change is the overall aim of the redesign**
  - Option 1 limits the potential of the redesign to improve noise, emissions and efficiency overall
  - And those already overflown say the burden could and should be more spread out

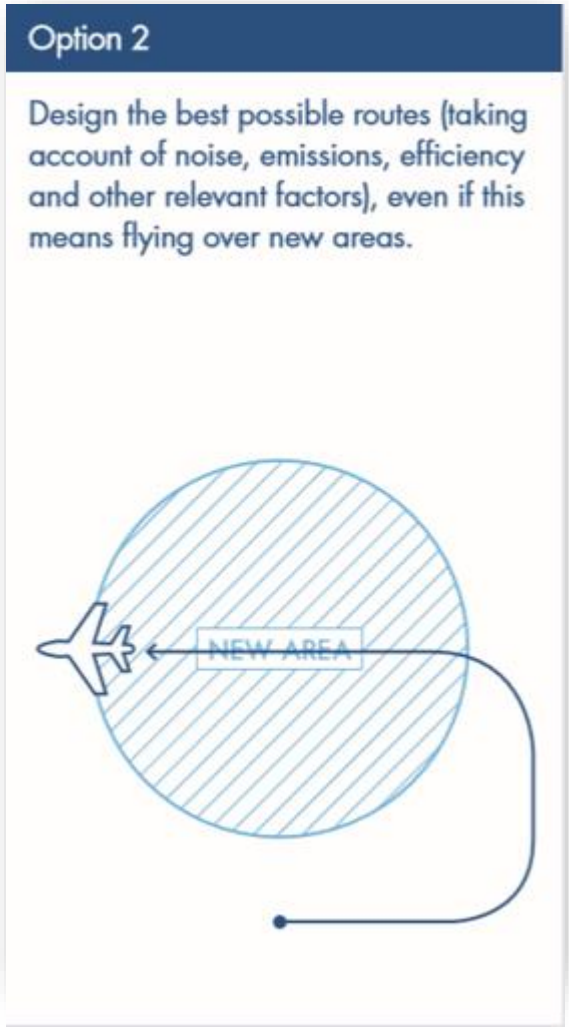


Option 2 seems the logical decision to many, although they note potential for community opposition

- **Option 2 fits with the overall purpose of the redesign**
  - A majority say the redesign exercise naturally calls for a clean slate approach to ensure the best outcomes
  - This will allow the most efficient routes to be developed 'from scratch'
  - The new design must be able to stand the test of time – so efficiency should be maximised *now*

- **It is seen as the fairer option, by spreading out impact**
  - If the volume of flights is to increase, flying over new areas may naturally spread out impact
  - However, there is potential for push back from those affected by new routes

- **Some are suspicious of the underlying motivation**
  - Individuals question whether flying over new areas gives permission for MAN to expand – commercial benefit is less palatable for some
  - And individuals state that this goes against previous agreements between MAN and local communities regarding route design / changes to routes



Question 1: potential adaptations

Optimisation / improvements

‘NIMBY’ is a keyword here – many are cautious about deciding on Option 2 without knowing if they personally will be affected. Severity of noise / height at which new areas will be overflown is an important point for inclusion. Additional information is key for many of the stakeholder groups

Potential for an option 3

While there is less need for a third option here, there is need for reassurance. Option 2 is the overall preference, but many emphasise the need for new routes to be properly thought through to minimise any resulting disruption. They want to know that the impact on communities is a genuine consideration.

Question 2

Concentrating or spreading out flight paths

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

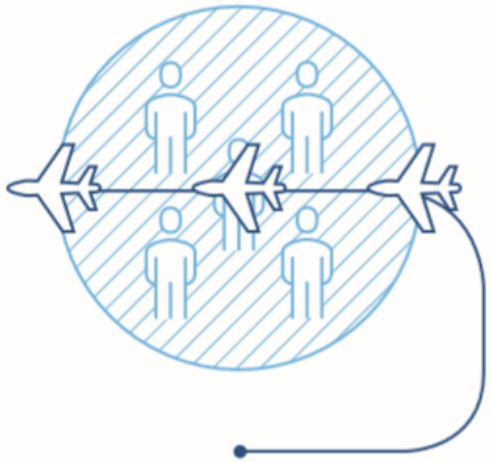
As an alternative, we can design flight paths that spread aircraft out over a wider area, perhaps using several alternative routes, and use varying flight paths on different days of the week or during different times of day to provide periods when there is no aircraft noise. If we take this approach,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

Please indicate your preference below

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

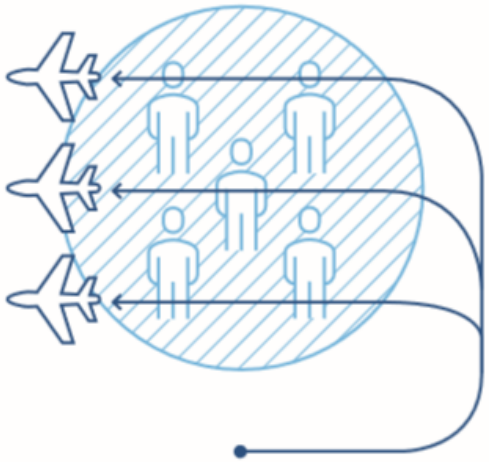
Option 1

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



Option 2

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



Question 2 Summary: Concentrating or spreading out flight paths

Views on the principle

In theory, spreading out flights is the fairer option, esp. with the volume of air traffic increasing. Designing routes to vary by day and time is welcomed as a considerate step by locals, as it would ensure restrictions on when / how often they were overflown. However some argue that this may be impractical.

Preferred option

Groups are particularly split on this question, although there is a slight preference towards Option 2. For many, this comes with the caveat that it is safe to spread out flights in this way, and does not impact too heavily on communities not currently overflown. Ultimately, this would have to be carefully executed and communicated.

Additional information required

Again, knowing if their own community would be affected would impact on respondents' choices, so clarification is required. In Business and Aviation groups more information is also needed on the impact of spreading out flights – in terms of logistics and emissions – in order to cut through.

Differences by groups

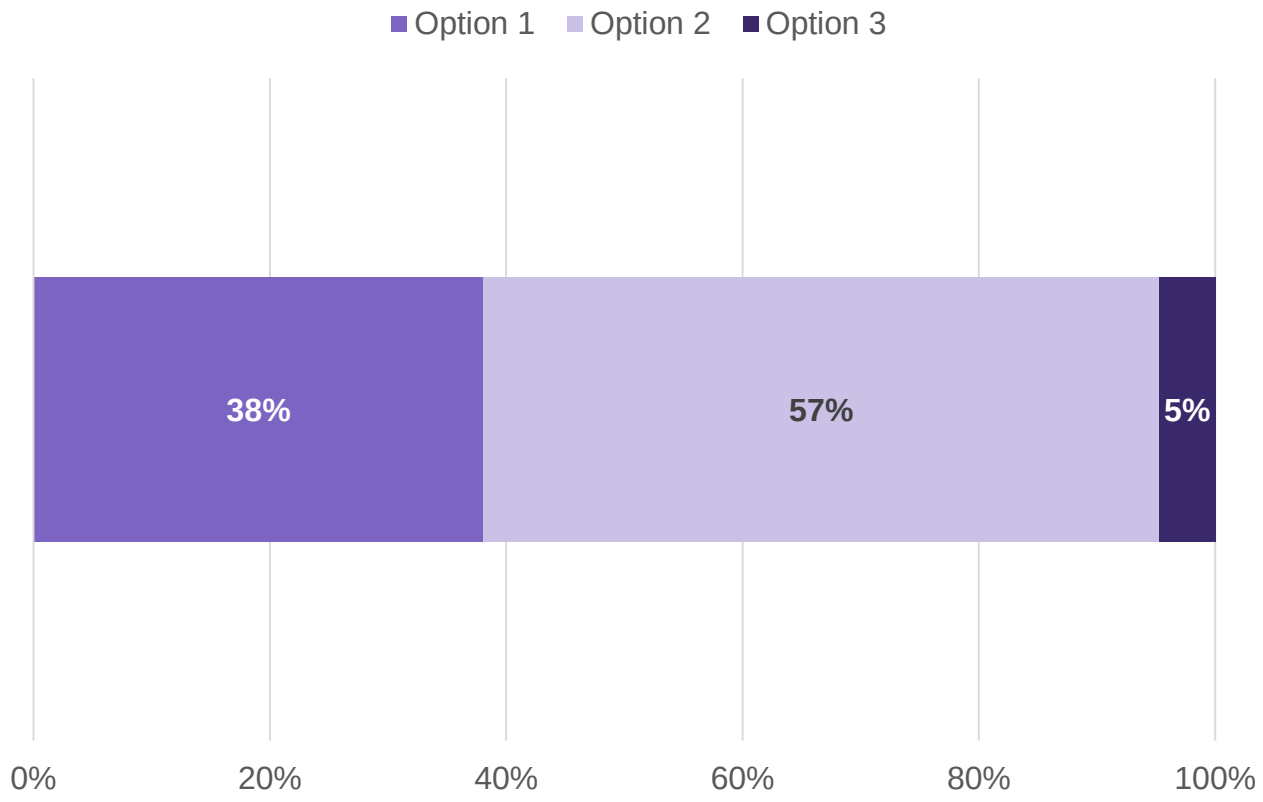
General public, Community and Elected Representative groups are most likely to focus on the burden of noise and emissions, with perspectives differing dependent on area lived in. Business and Aviation groups focus more on the practical aspects of spreading out flights, suggesting this could be more complex than presented here.

Overall, Option 2 is the preferred route for question 2

Concentrating or spreading out flight paths

Option 1 *– Concentrate flight paths, which will affect fewer people but to a greater extent.*

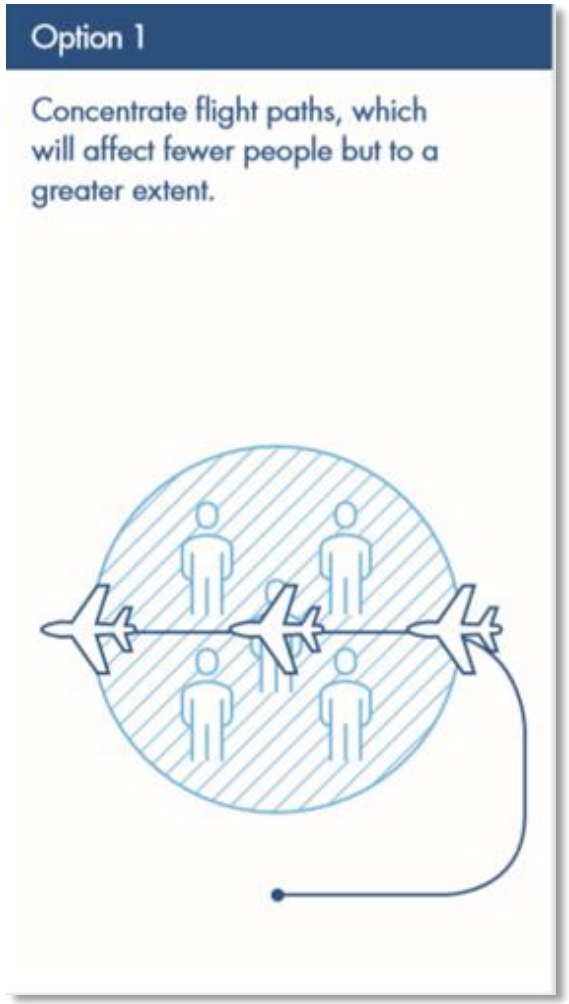
Option 2 *– Spread out flight paths, which will affect more people but to a lesser extent.*



N.B. figure is based on responses on self-complete forms completed by stakeholders in the groups

Option 1, while less fair, is seen as the most practical way forward

- **This option could be the most efficient choice**
  - Efficiencies in terms of reduced administrative burden and impact on emissions are key – some request more information on this
  - Business and Aviation groups are especially keen to drive efficiencies forward to ensure a more effective approach
- **Many acknowledge the impact of increased volume of flights**
  - Increased volume of flights could mean residents under the concentrated area are faced with intolerable noise
  - This could have negative impact on their living situations
- **However, sharing the burden may not be possible**
  - For those most affected, 'spreading the pain' may not be achievable – adequate support should be given to minimise impact for those affected by noise instead
  - Equally, those not currently overflown are reluctant to share the burden



Option 2 is felt to be fairer, especially when spreading flights over days and times

- **Option 2 is preferred, as impact is shared**
  - If volume of flights is to increase, the noise / emissions burden should be shared by the many, not focused on the few
  - Again, some are reluctant to accept the impact themselves
- **Varying the days and times of impact is especially well received**
  - This could lessen the effect on the most impacted communities, fitting around sleep /work / leisure patterns, and ensuring quiet times when residents are not overflown
  - More information is requested about approach to night flights – could some more rural areas (e.g. Tatton Park) be flown over at night instead of residential areas?
- **Some question the practicability of this option**
  - Some Aviation reps suggest the administrative burden here would be too high
  - Limitations of airport / runway design mean those living very close will remain in the area of impact regardless

Question 2: potential adaptations

Optimisation / improvements

Again there is a need for more information – particularly around how wide corridors would be, and therefore which areas would be affected (and to what extent) if Option 2 were to go ahead. Greater clarity around the impact of the two options on emissions would also be useful, and the times when local areas would not be overflown.

Potential for an option 3

While most opt for the second option, some suggest that spreading the burden of noise and emissions does not ultimately help those most affected (those nearest to take-off and landing points). Option 3 could be an extension of Option 1, to ensure that communities under the concentrated flight paths are adequately supported to mitigate noise and emissions.

Question 3

Flying over built-up areas

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

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

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

Please indicate your preference below

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

Option 1

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

Option 2

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

Question 3 Summary: flying over built-up areas

Views on the principle

Respondents across groups struggle with the binary options here. While they can see the benefit of flying over rural areas, many believe the impact would be too great to justify this consistently. However, some are concerned about the already high level of noise and emissions in built up areas. Safety is also a key consideration.

Preferred option

While there is a slight preference for Option 2, this is not a clear cut decision, with many considering or opting for a third option. While some argue that routes should be designed to be efficient (and therefore direct), others believe the issue is complex, and factors such as times, days and population need to be considered.

Additional information required

Many want a clearer definition of what constitutes a built-up area – while flying over commercial built-up areas could be a reasonable option, flying over built-up areas with a high residential population (esp. at night) would be approached differently by respondents.

Differences by groups

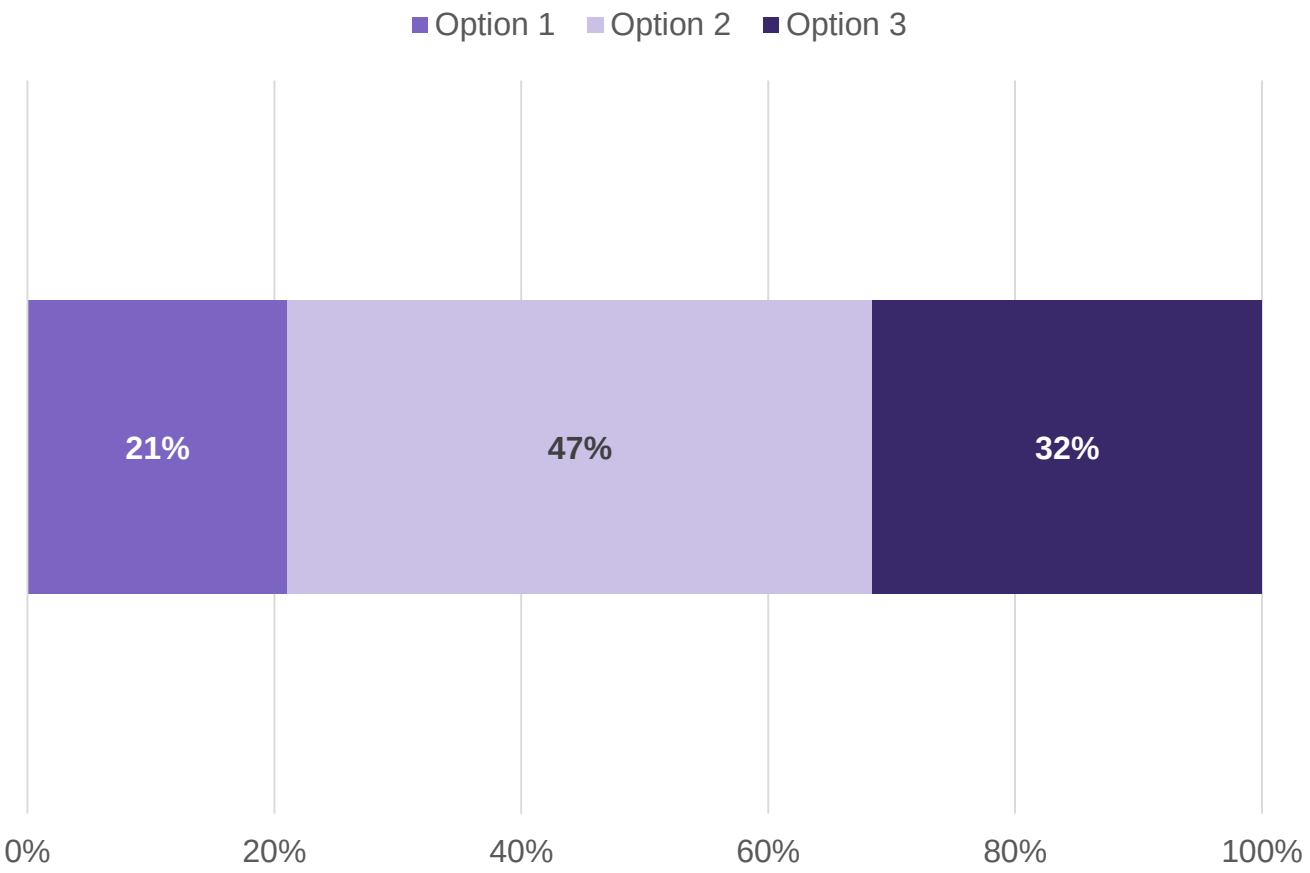
Those in the Aviation groups vote unanimously for Option 1 on the basis of safety. They also argue that the greatest noise impact points are at take off and landing, when routes are less flexible anyway. General Public and Care groups lean more towards a spreading of pain, whilst other stakeholders highlight the need for efficiency.

Overall, Option 2 is the preferred route for 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.*

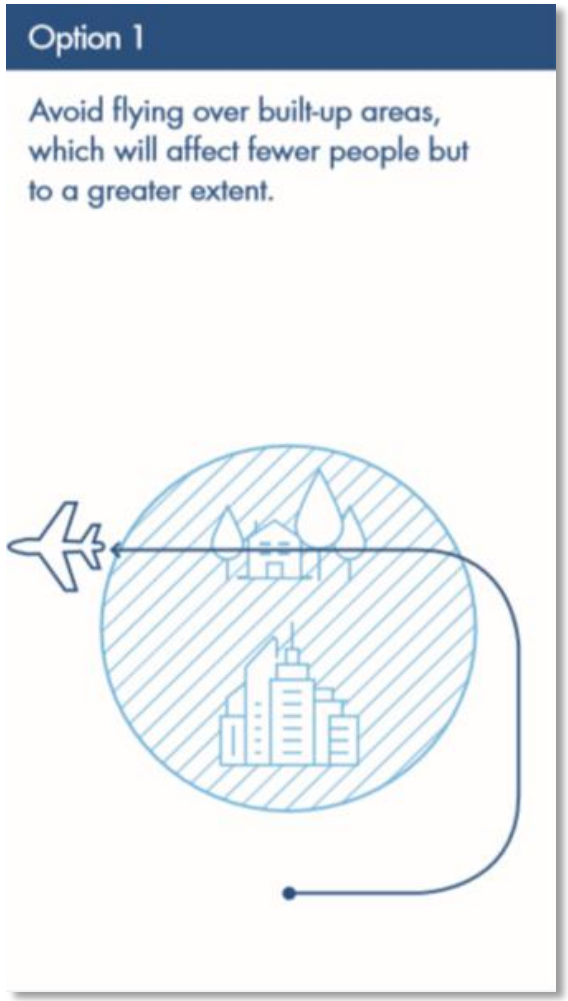
Option 2 *– Avoid flying over villages and rural communities, which will affect more people but to a lesser extent.*



N.B. figure is based on responses on self-complete forms completed by stakeholders in the groups

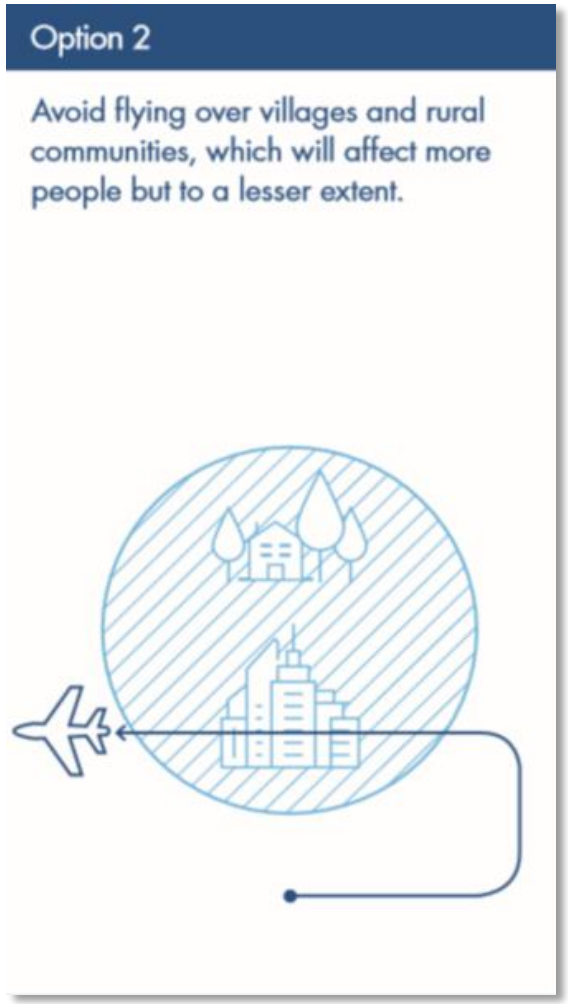
Option 1 appeals for safety reasons, but many are concerned about noise impact

- **This option makes sense in theory**
  - It would alleviate pollution in built-up areas, where some feel levels may become unacceptable
  - It could also be a particularly good option for night flights, if flying over areas used less overnight (e.g. Tatton Park)
- **There is also a safety element here**
  - In all groups, concerns around the safety of flying over built up areas are mentioned spontaneously
  - Most agree that flying over rural areas minimises potential for damage should an accident occur
- **However, many argue rural areas would struggle with the impact**
  - Low ambient noise means greater noise impact form aircraft – for both residents and visitors – on a daily basis
  - Rural areas offer 'tranquil' space for those looking to step away from city life, so leisure use should be considered here



Many see the logic behind Option 2, but argue flexibility is needed

- **Option 2 appeals as it protects tranquillity in rural areas**
  - There is agreement that ambient noise in built-up areas would mask flight noise to some extent; those living in built-up areas say that noise is part of their daily experience, and are used to this
  - Whereas, many are concerned about the extent of the disruption to rural areas, especially at night
- **However, many are concerned about increased CO2 emissions**
  - With some areas already high in noise and emissions, many question whether it is appropriate to add to this
  - There are concerns around the impact of night flights, when ambient noise may not be so high, and residents will be more impacted
  - The definition of a built up-area is subjective – it could be Manchester or Knutsford or a hamlet – which could influence respondents' choices
- **Some ask if this could be adapted as a result**
  - A small curve to avoid a community would have a minor impact on emissions, as limited fuel would be used, and is suggested by stakeholders across a number of groups



Question 3: potential adaptations

Optimisation / improvements

There are a number of additional factors to consider. Many argue that ‘built-up’ areas is vague, and so should reference the size of area, and also distinguish between residential versus commercial built-up areas. Efficiency is a key factor too, and impact on emissions already existing in certain areas should be accounted for – not just noise.

Potential for an option 3

Across groups, respondents struggle with these options – many (esp. stakeholders) argue that the best option is taking the most direct route, while the General Public and Care groups prefer to spread out the burden, taking into account the differential effect of flights at different times and on different days.

Question 4

Balancing noise and emissions

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

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

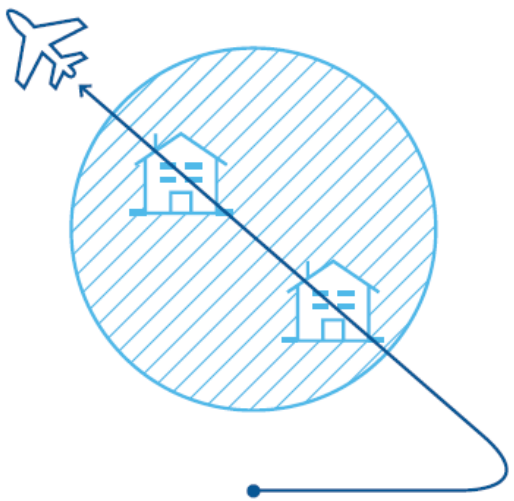
We need to find the right balance between having more direct flights (to reduce emissions and journey times) and keeping local communities' exposure to aircraft noise to a minimum.

Please indicate your preference below

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

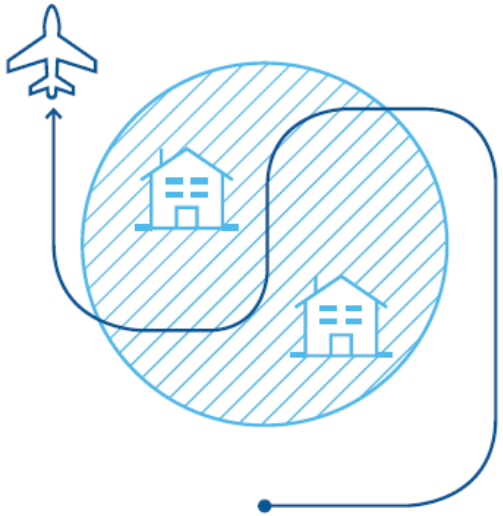
Option 1

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



Option 2

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



Question 4 Summary: Balancing noise and emissions

Views on the principle

All acknowledge the importance of tackling noise and emissions in future, so this is an important design principle across groups. For most, reducing emissions is the priority - noise pollution is irritating, but air pollution is harmful and must be broached. Many expect to see quicker flights as a benefit of efficiencies.

Preferred option

Across groups, Option 1 emerges as the strongest, followed by Option 2 and a hybrid Option 3. Most understand that direct routes will ensure increased efficiency and reduced emissions, and although communities will be flown over, stakeholders argue that it is important to take the long view and tackle emissions head on.

Additional information required

Many request more quantifiable data on key points in order to make an informed decision. In particular, they ask for evidence around the % reduction in emissions Option 1 would bring, and how this would impact air quality. Some also call for information on noise reduction. Faster flights appeal, but only if they're significantly quicker, which should be clear.

Differences by groups

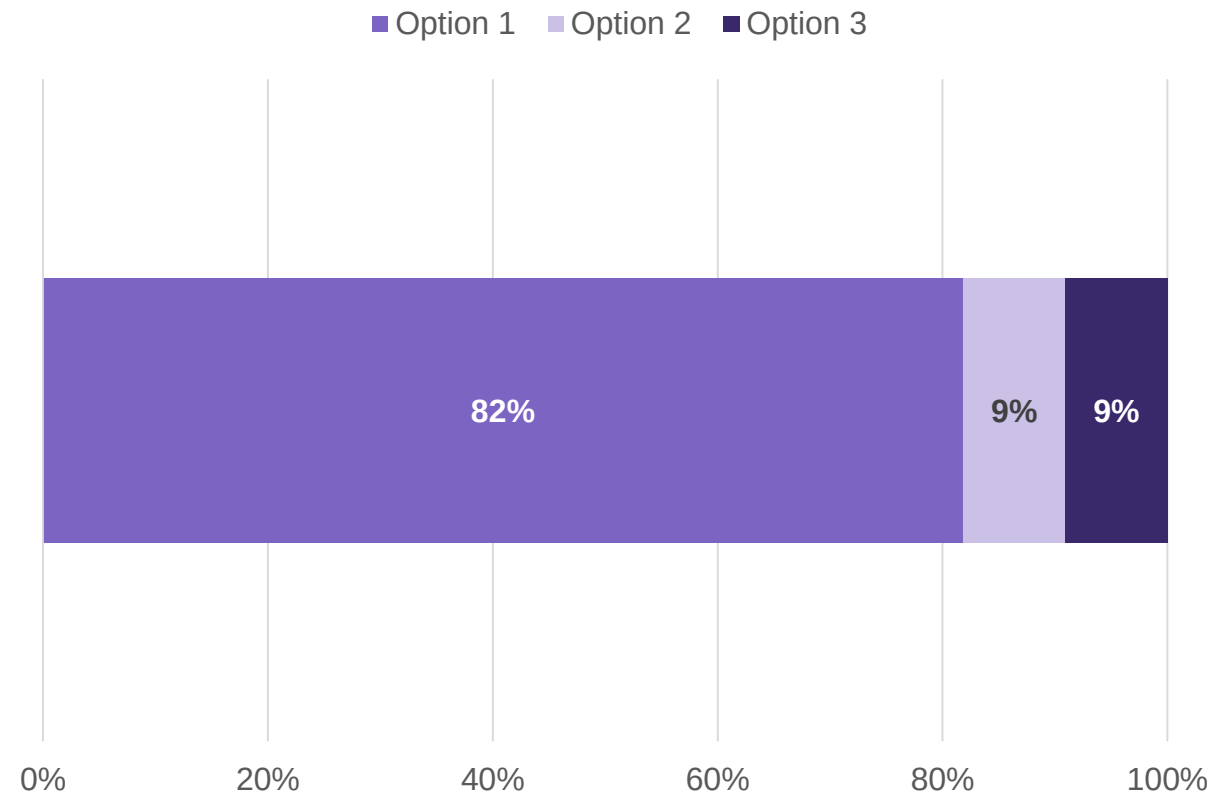
All groups understand the significance of the emissions and the current climate emergency. Individuals in the Elected and Leisure groups however, state that more focus should be placed on aircraft designers, to ensure that aircraft emissions are as low as possible.

Overall, Option 1 is the preferred route for 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.*

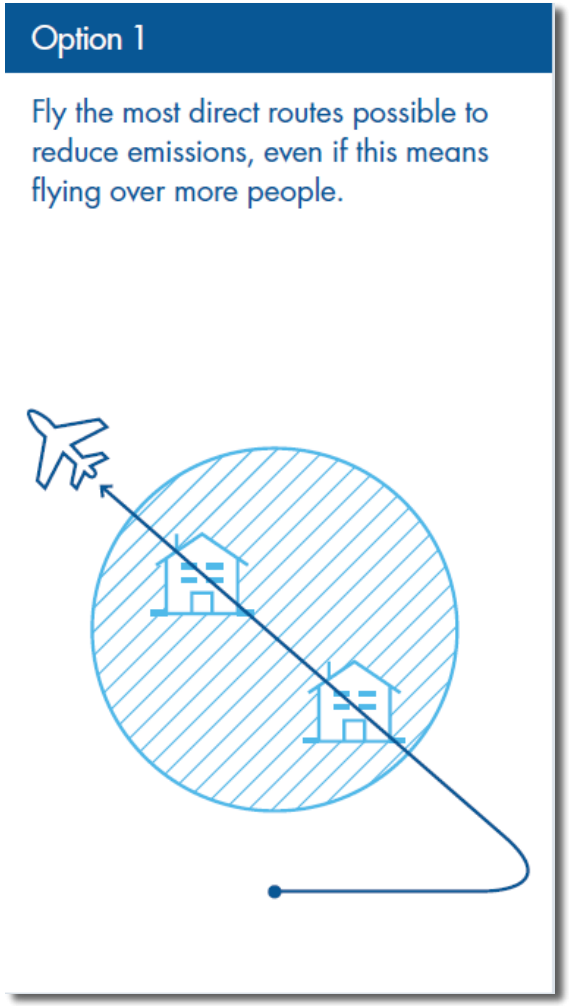
Option 2 *– Avoid flying over communities so fewer people are affected by aircraft noise, even if this means higher CO2 emissions.*



N.B. figure is based on responses on self-complete forms completed by stakeholders in the groups

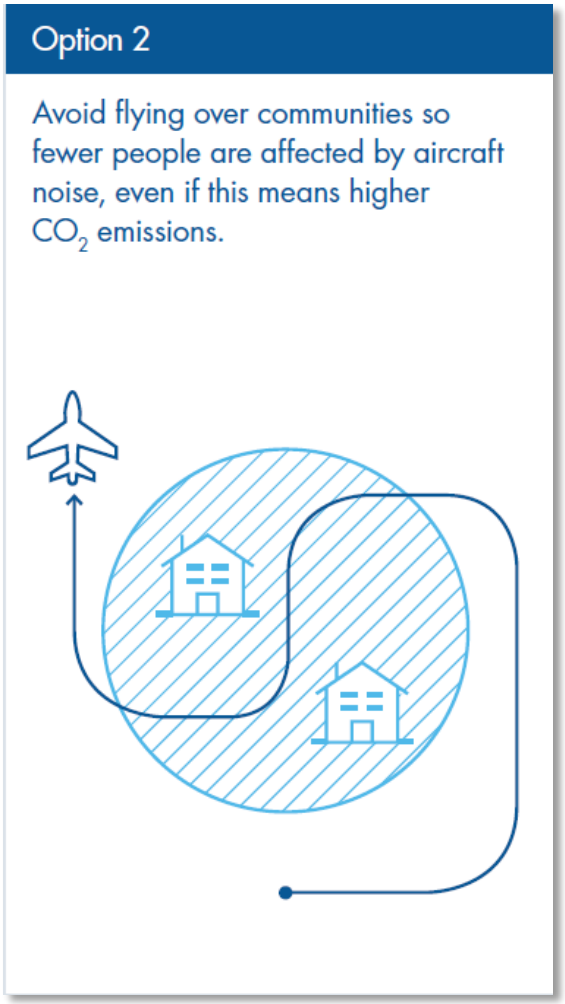
Option 1 is considered to be the most practical and efficient approach

- **Reduced emissions makes Option 1 the natural choice**
  - Climate change is very much in the public consciousness, and many are looking to MAN to cut emissions wherever possible
  - Flying a direct route will help to tackle the emissions challenge
- **Reviewing airspace should involve future-proofing**
  - Most feel that Option 1 is the most forward-thinking
  - By cutting down emissions, there could be an environmental benefit
  - However, many question the extent of the reductions: will they be substantial enough to make a difference?
- **However, there is concern about community impact**
  - While Option 1 does cut emissions, many struggle with the fact that it also leads to more people being flown over (esp. if not overflown before)
  - Many want to know the areas affected, as this might sway their opinions the other way – i.e. 'NIMBY'



Option 2 is felt to be fairer to local residents, but it fails to tackle CO2 emissions

- **Option 2 does hold appeal to stakeholders**
  - This is seen as a fairer approach than Option 1, as it avoids communities, leaving them less affected by noise
  - Those living under the flightpath see this as particularly important
- **However, many are concerned about increased CO2 emissions**
  - With climate change such an important topic, many struggle with the idea of new routes that may lead to higher emissions
  - On paper, Option 2 is seen to be at odds with current emissions targets
- **Some ask if this could be adapted as a result**
  - Individuals question whether smaller changes to flight paths would result in higher emissions, than bigger changes to the course
  - Few think that a small curve to avoid a community will have a big impact on emissions, as limited fuel will be used



Question 4: potential adaptations

Optimisation / improvements

The main areas for optimisation and improvement are around information. There's a demand for more evidence around noise / emissions reductions claims (statistics where relevant) to help them judge the benefits of Option 1, and make an informed decision.

Potential for an option 3

While most are able to select between Option 1 and Option 2, some see an opportunity for a hybrid Option 3. Option 3 in this instance would be to fly the most direct path on take-off (for speed and efficiency), but avoid local communities on decent / landing.

Question 5

Taking account of current arrangements and agreements

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

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

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

Please indicate your preference below

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

Option 1

Continue with current arrangements and ways of operating.

Option 2

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

Question 5 Summary: Taking account of current arrangements and agreements

Overall views on the principle

Many say that the agreements and arrangements already in place must be considered as part of the redesign – all are conscious of the potential for conflict should these not be honoured. However, a majority also say that, given the opportunity to redesign airspace, efficiency should be a priority and it may be necessary to compromise in some areas.

Overall preferred option

For a majority, Option 2 is preferred - it is the option offering the most flexibility, and could benefit local communities in terms of noise and emissions. While there is recognition that some communities may strongly oppose change, ultimately Option 1 would be too limiting at this stage of the design process.

Questions / additional information needed

While the majority agree with Option 2 in principle, there is an issue with the phraseology here. Driving efficiencies is read by many as the airport 'saving money' - so more information is needed to understand how residents and passengers could benefit too. Knowing which areas may be adversely affected, and to what extent, is also key.

Emergent group differences

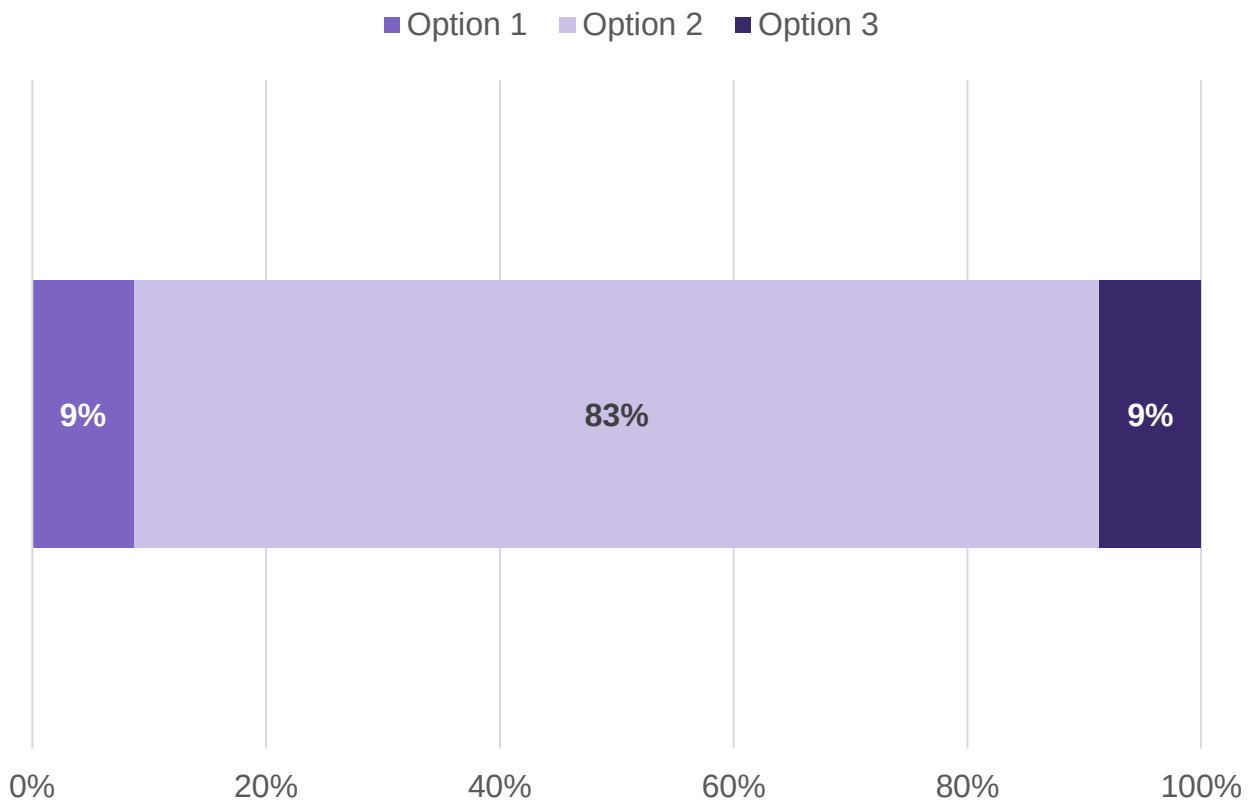
Elected Representatives are the most cautious about moving away from established arrangements – this is particularly true of those from communities holding current agreements with the airport (e.g. Knutsford). There is potential for much disruption in these areas and, for some, this could outweigh any benefit.

Overall, Option 2 is the preferred route for 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.*



N.B. figure is based on responses on self-complete forms completed by stakeholders in the groups

Option 1 would be the smoothest way forward, but not necessarily the most effective

- **Option 1 will reduce the potential for conflict with certain areas**
  - Long standing arrangements with certain areas are a key part of the airport's relationship with local communities
  - Agreements with local communities may have been part of residents' decisions to purchase in the area
  - Some are concerned about the impact if these are then altered
- **Pushback could mean extra expense and delays**
  - Altering arrangements could cause tension and the airport may face backlash from some communities (e.g. Knutsford)
  - Pushback from communities could make the redesign an expensive and lengthy process
- **But Option 1 limits potential for efficiency**
  - Many wish to see the redesign exercise treated as a clean slate to maximise benefit for all, not just those with current agreements
  - They struggle to see how this option could bring efficiencies as a result

Option 2 is seen as the most utilitarian option, in terms of noise, emissions and overall future proofing

- **For many, Option 2 is considered the strongest approach**
  - The purpose of the airspace redesign is to improve efficiency, and Option 2 allows the most scope for this
  - There will be 'pain' in some areas, where communities are no longer afforded protections, but many still believe this is the fairest way forward
  - A minority even question why some agreements exist in the first place *"Cheadle doesn't have the protection that Knutsford has…"*

- **Cutting emissions should be a priority where possible**
  - For the Care group especially, cutting emissions is a key driver here and takes priority over any long-standing agreements
  - The visible impact on people's health drives this belief

- **Adaptation is seen as a key guiding principle**
  - The areas surrounding the airport have changed over time – airspace redesign offers an important opportunity to adapt and fit the new community landscape

Question 5: potential adaptations

Optimisation / improvements

Relationships between the airport and local communities here could be strained if not approached sensitively – should changes be made to existing agreements, these need to be reasonable, considerate and kept as minimal as possible. Careful and timely communication is essential to cut through.

Scope for Option 3

For many, this is not a clear cut exercise. Where agreements are to be changed, there should be adequate cost / benefit assessment before making changes – resulting in an Option 3 approach where changes are made after consultation. The saving on emissions must be worth the impact on local residents.

Question 6

Other airspace users

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

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

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

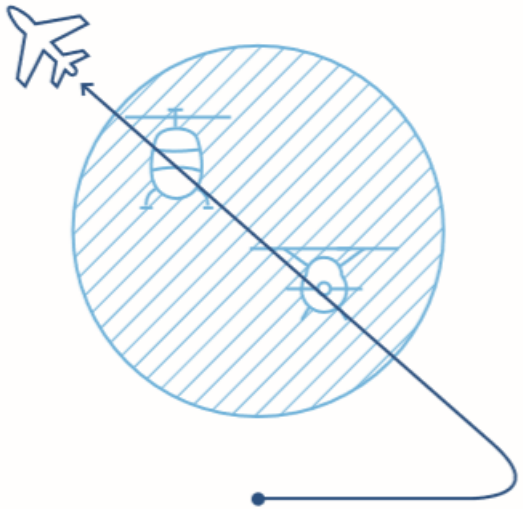
- prioritise the best possible routes for aircraft flying to and from the airport, to minimise noise, emissions and inefficiencies in operations at our airport; or
- introduce flight paths that mean other airspace users are not significantly disadvantaged by changes, even if this means aircraft using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

Please indicate your preference below

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

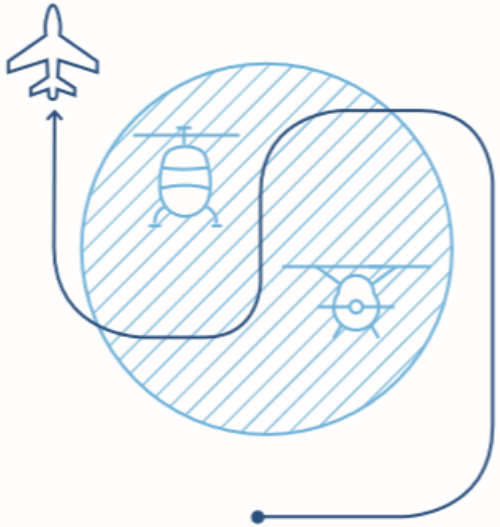
Option 1

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



Option 2

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



Question 6 Summary: Other airspace users

Overall views on the principle

A majority of respondents see airport traffic as taking priority. This is especially the case for those using the airport as passengers, and businesses who see the economic value of airport efficiency. For many, other airspace users take a backseat to reducing noise and emissions, which are seen as the main factors to consider.

Overall preferred option

There is a slight majority preference for Option 1, as this is seen as the clearest way to drive efficiencies. For those on the fence, or choosing Option 2, this was often due to prioritisation of air ambulance services – other air space users are still seen as lower priority than airport traffic. Aviation groups have the greatest understanding of the value in GA.

Questions / additional information needed

There is a need for information on how many other airspace users may be affected, and what the implications for them may be – for a lay audience, it is difficult to understand how they may be impacted. Safety is also a factor mentioned frequently, on both sides of the argument, so clarity around safety considerations may sway those who are undecided.

Emergent group differences

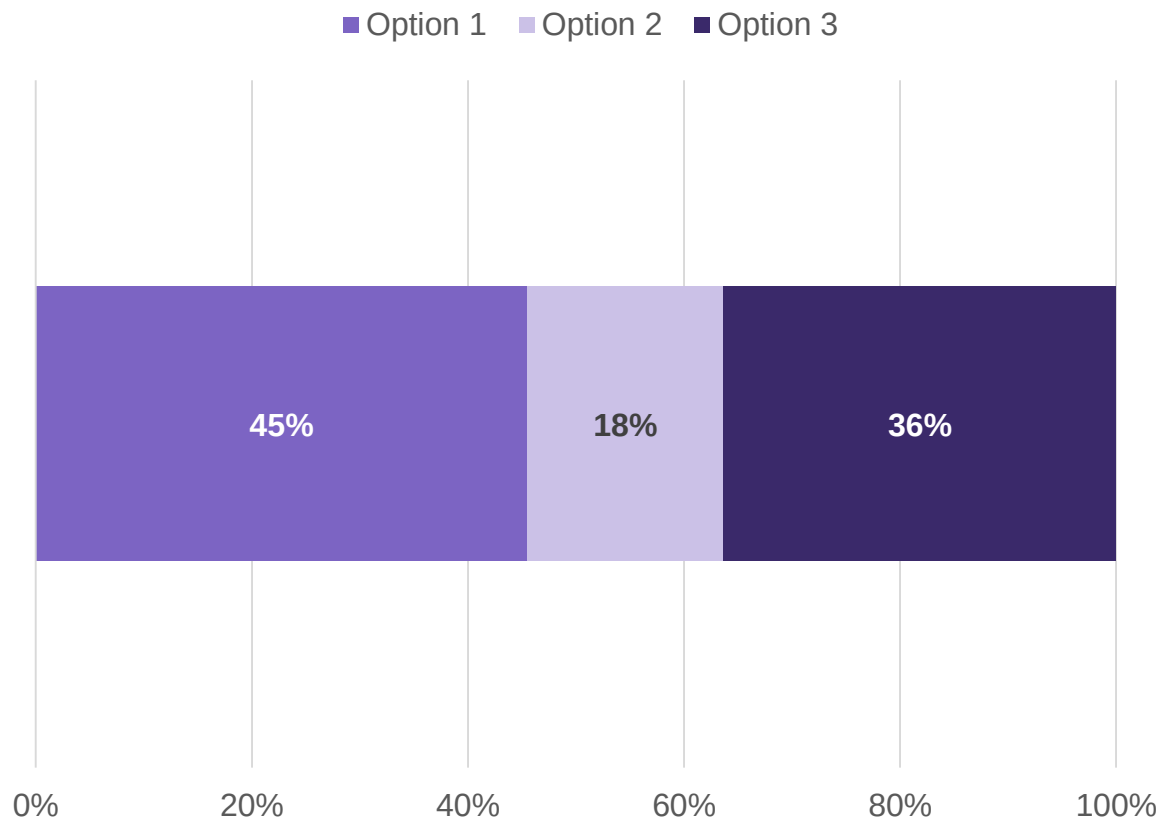
Business groups focus on the economic factors involved, seeing airport aircraft as the most profitable of all users. Those in the Care group are esp. cautious of disruption to air ambulance services, while those in the Aviation groups strongly oppose Option 1 on the basis that other airspace users should receive consideration of their needs.

Overall, Option 1 is the preferred route for 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.*



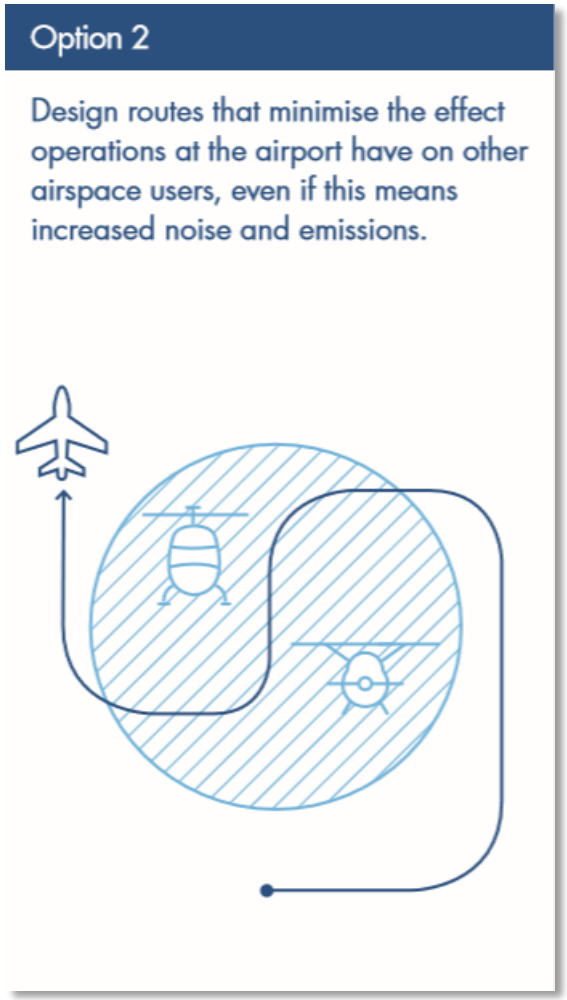
N.B. figure is based on responses on self-complete forms completed by stakeholders in the groups

Option 1 is the majority preference as it allows for the most efficient routes

- **Option 1 supports the development of efficient flight paths**
  - It allows for direct routes, taking into account noise and emissions, which are seen as key factors across groups
  - Many see other air users as a lower priority than airport air traffic – especially those who use the airport themselves
- **There are some exceptions in terms of priority**
  - Across groups (esp. the Care group), Air Ambulance / emergency services aircraft are seen as having ultimate priority
  - Those in the Special Interest group also include military aircraft as higher priority than other GA users
- **But Option 1 could heavily impact other airspace users**
  - Those in the Aviation group oppose disadvantaging other air users
  - This group believes that their needs should be considered, and worry about the safety impact if they are not included in future plans

Many oppose Option 2, putting efficiency ahead of other airspace users

- **Option 2 is seen as the weaker option by many**
  - This option seems too limiting in the context of the redesign
  - Some question the extent to which other airspace users would be impacted in the first place, seeing disruption as minimal
- **Other airspace users should be considered – to an extent**
  - Air ambulance and military aircraft have some priority over airport air traffic, due to the crucial roles they play
  - For those in the Aviation group, the key issue here is to take into account the needs of other airspace users where possible
  - Some argue that they need information on the volume of other airspace users and the safety implications to make a decision
- **Ultimately, reducing noise and emissions is key**
  - For many, maximising the efficiency of redesigned airspace – in terms of noise and emissions – is a priority over other airspace users



Question 6: potential adaptations

Optimisation / improvements

There is scope to include more information here on the volume of other airspace users who could be impacted, and outline some of the safety considerations that would need to be accounted for. Most stakeholders – bar Aviation representatives – have little understanding of the role and needs of GA in this context.

Scope for Option 3

Those choosing Option 2 did so, for the most part, to allow flexibility for emergency air traffic – air ambulance, military aircraft. A third option could include this caveat, distinguishing between airport air traffic, emergency aircraft, and others using the airspace for leisure.

Question 7

Aircraft types

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

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

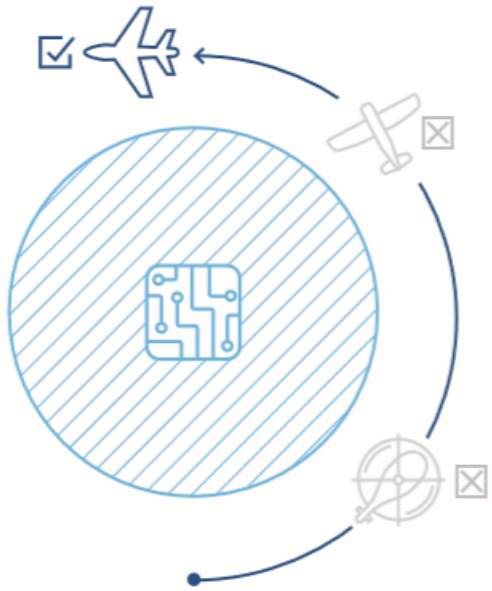
The number of older and smaller aircraft affected by any change we make is likely to reduce over time. In the meantime, we need to consider how and where these aircraft currently operate.

Please indicate your preference below

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

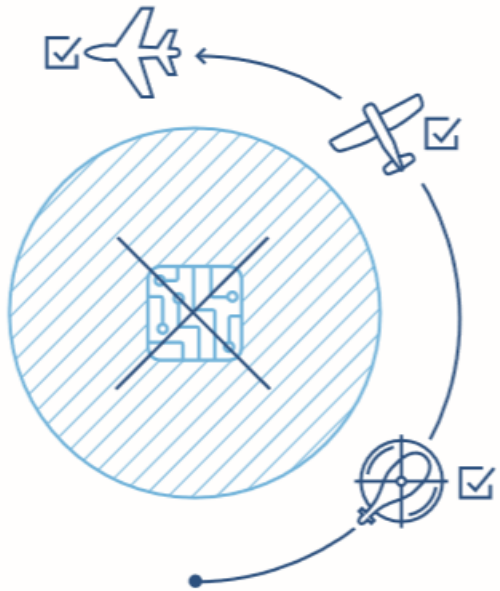
Option 1

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



Option 2

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



Question 7 Summary: Aircraft types

Overall views on the principle

For a majority, modernisation of airspace naturally encompasses use of new technology. Where technology exists to improve noise, emissions and efficiency, the consensus is that it should be used. Many acknowledge that some airspace users could be disadvantaged by this, but argue that with the right support, use of new tech will become the norm.

Overall preferred option

Option 1 is the preference – new technology should be embraced. For those living under flight paths, phasing out of older aircraft is a win-win. Within this however, some argue that there should be support to adopt new technology, and phasing out of old technologies should be gradual – this would allow air space users time to adjust and minimise disruption.

Questions / additional information needed

There is concern around the extent of short – medium term consequences, especially in terms of flight cost and availability. While there is agreement that new technology is important, this should not be of detriment to the economy. Respondents want timelines around how long a phased approach to adopting new technology would take.

Emergent group differences

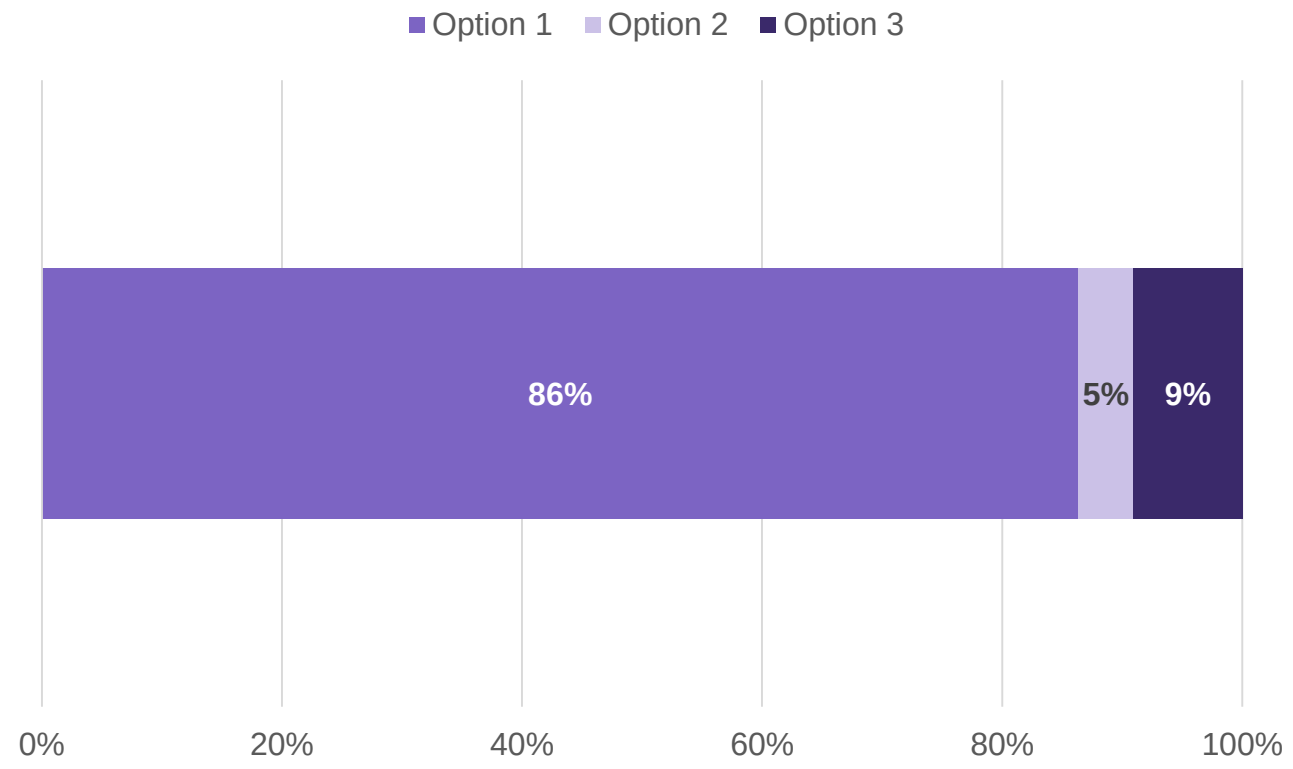
The Aviation groups are particularly positive about the scope for new technology to maximise the potential of aircraft being flown – aircraft now can be smaller, lighter and more accurate, which could benefit other airspace users too (e.g. more space for GA traffic).

Overall, Option 1 is the preferred route for 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.*

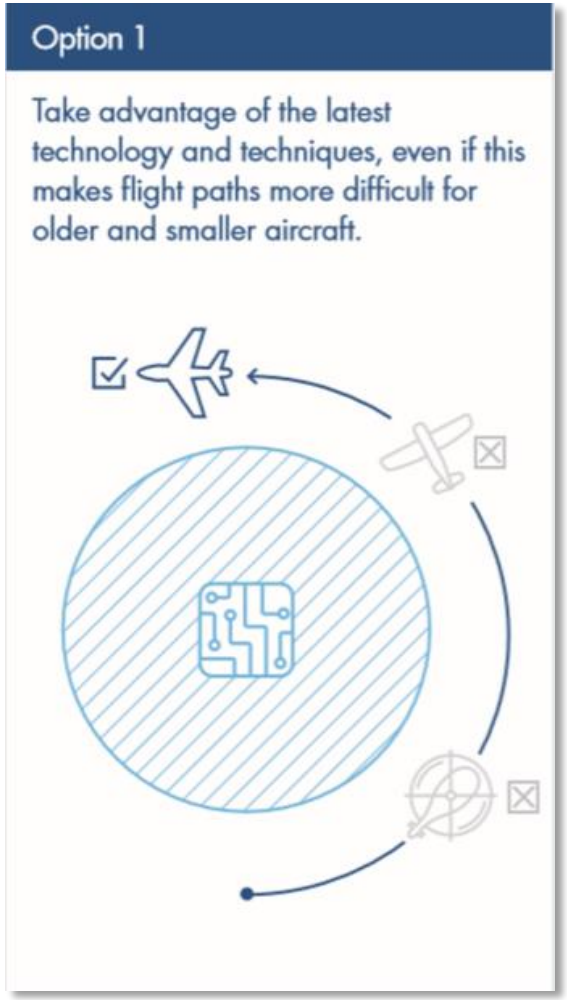
Option 2 *– Design routes that minimise the effect operations at the airport have on other airspace users, even if this means increased noise and emissions.*



N.B. figure is based on responses on self-complete forms completed by stakeholders in the groups

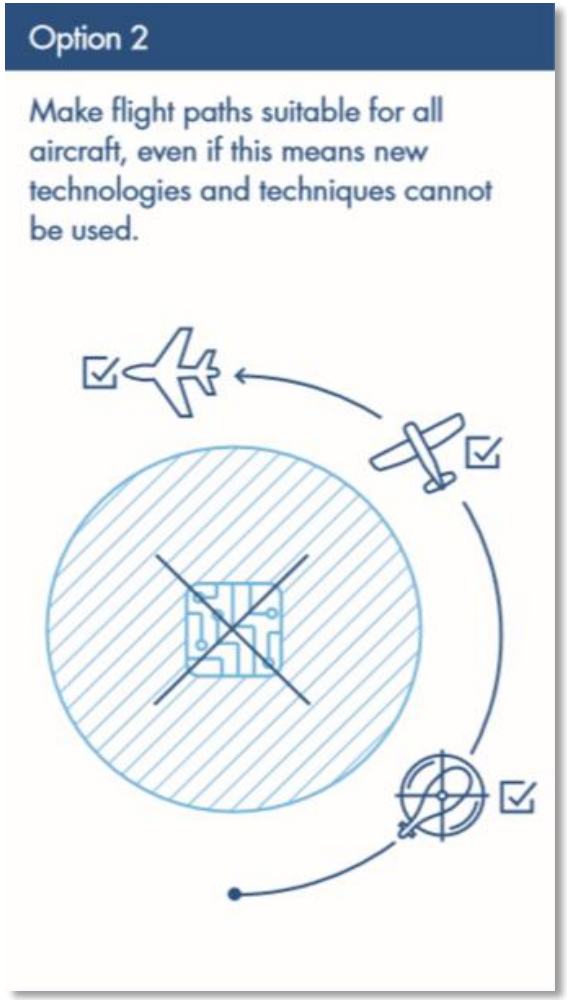
Option 1 is seen as the natural choice when it comes to modernisation

- **Option 1 is seen as a necessary step by many**
  - If new technology is available, which can reduce noise and emissions, it should be used to the greatest extent possible
  - The purpose of the redesign is to modernise and future proof airspace – this goes hand in hand with new technology
- **The onus is on the airlines to make air travel more efficient**
  - Airlines should take responsibility for driving efficiencies, and this includes using up to date technology
  - For those less able to adopt new technology, incentives and support could be put in place to encourage them to do so
- **This option means older aircraft would be decommissioned**
  - For those living under flight paths, this is welcomed – it means less noise and reduced emissions
  - Some question what would be done with planes taken out of service – more information is needed to understand how they would be disposed of



Option 2 seems counter-productive in the context of modernisation

- **Option 2 is seen as the weaker option by the majority**
  - Use of new technology should be the standard to aim for, regardless of aircraft type
- **But many acknowledge that older aircraft will be around for a while**
  - While new technology is supported, many acknowledge this will take time to roll out
  - They expect a phased approach to minimise impact – this is especially important in terms of the economy
  - Many want more details on what the time frame for this will be
- **Ultimately, reducing noise and emissions is key**
  - Cleaner, quieter air travel is a priority across groups, and aircraft with the most up-to-date technology is most likely to deliver this



Question 7: potential adaptations

Optimisation / improvements

Again, the key improvement here is more information. How long will phasing out take? What small aircraft will be involved (i.e. commercial jets vs. pleasure craft)? What happens to the aircraft that become unusable? What is the impact on emissions of the new technology? However, Option 1 is the clear choice already.

Scope for Option 3

Although an Option 3 is not necessary here in terms of consensus, many would like to see some consideration for airlines / operators less financially able to take on new technologies – for example phasing or incentives – to ensure the economy does not take a hit.

Question 8

Multiple flight paths in the same area

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

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

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

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

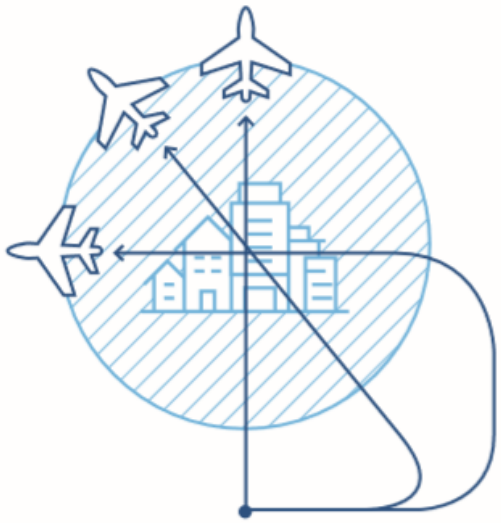
- the efficiency of individual routes; or
- avoiding areas being overflown by several routes.

Please indicate your preference below

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

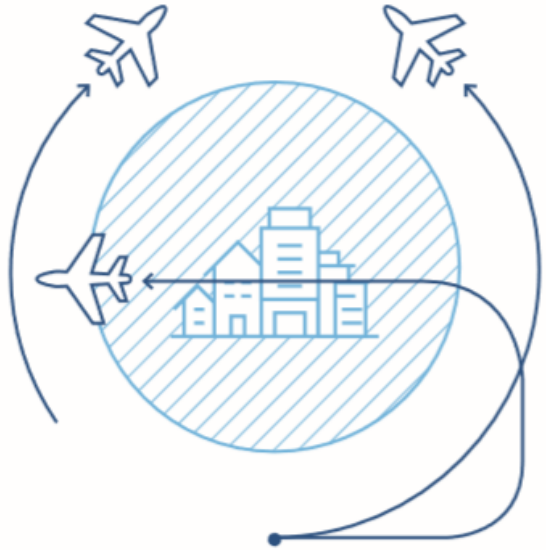
Option 1

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



Option 2

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



Question 8 Summary: Multiple flight paths in the same area

Overall views on the principle

While many acknowledge that some communities will be adversely affected, there is a preference for whichever strategy is most efficient. However, some also feel that where impact can be minimised for local communities, efforts should be made to do so – there is scope for a third option, where caps are put in place to ensure noise doesn't become intolerable.

Overall preferred option

Option 1 is the strongest for reasons of efficiency – this is beneficial in terms of emissions, and also has some safety implications (simplicity of design means less room for mistakes). While some argue that the increased burden on some communities would be unfair, they do admit that efficiency is key, and has benefits including reduced pollution.

Questions / additional information needed

There may be some areas where the noise impact from overlapping routes would be negligible – for example in communities already used to being overflown. However, the impact of increased emissions is less well understood – more information is needed about exactly what the impact might be on the ground, should routes overlap.

Emergent group differences

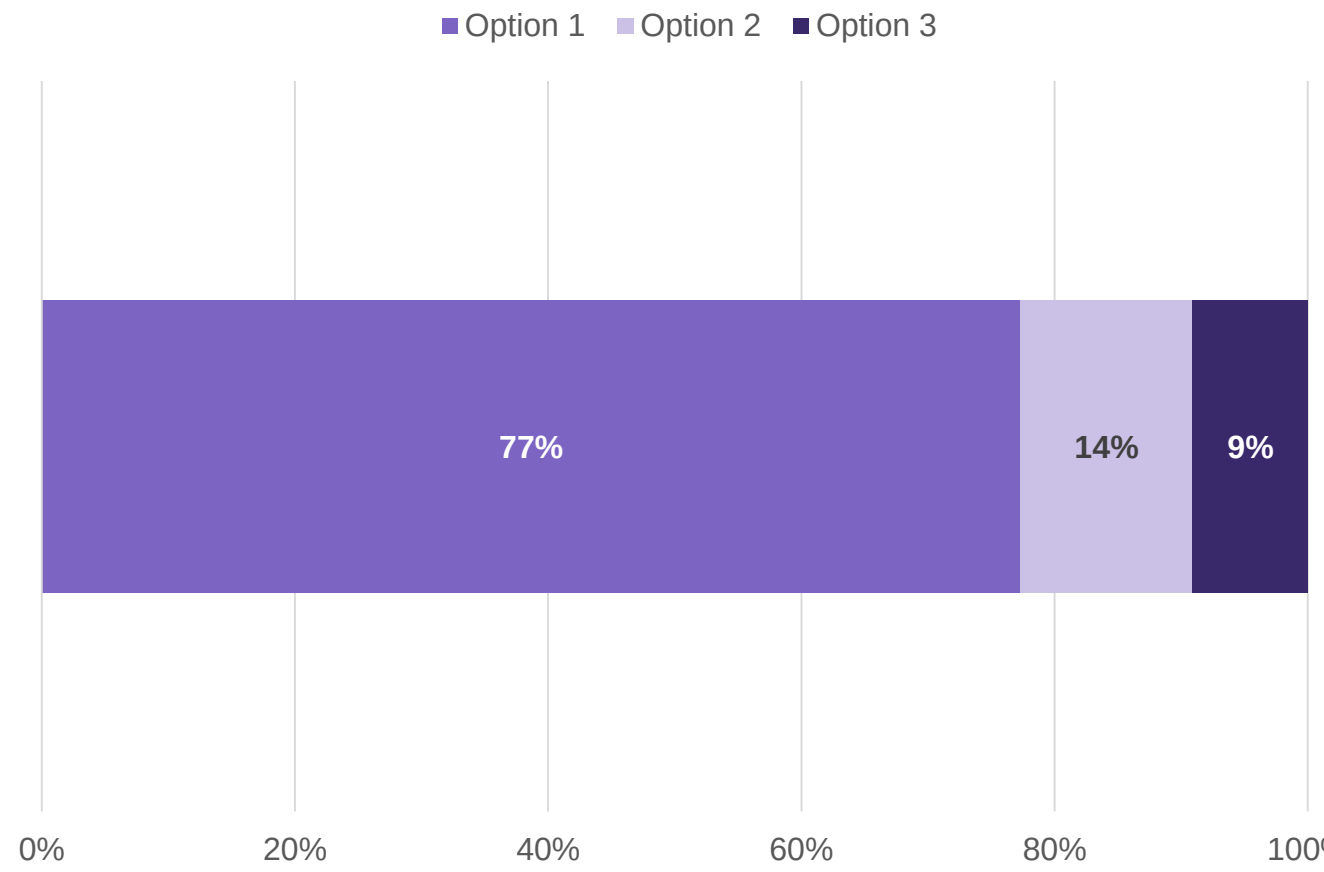
The Aviation group again highlight the potential for mistakes should Option 2, the more complicated option, be taken. Care and Community groups are the most concerned about the burden of overlap – due to noise and emissions – which could impact health as well as every day experience.

Overall, Option 1 is the preferred route for 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.*

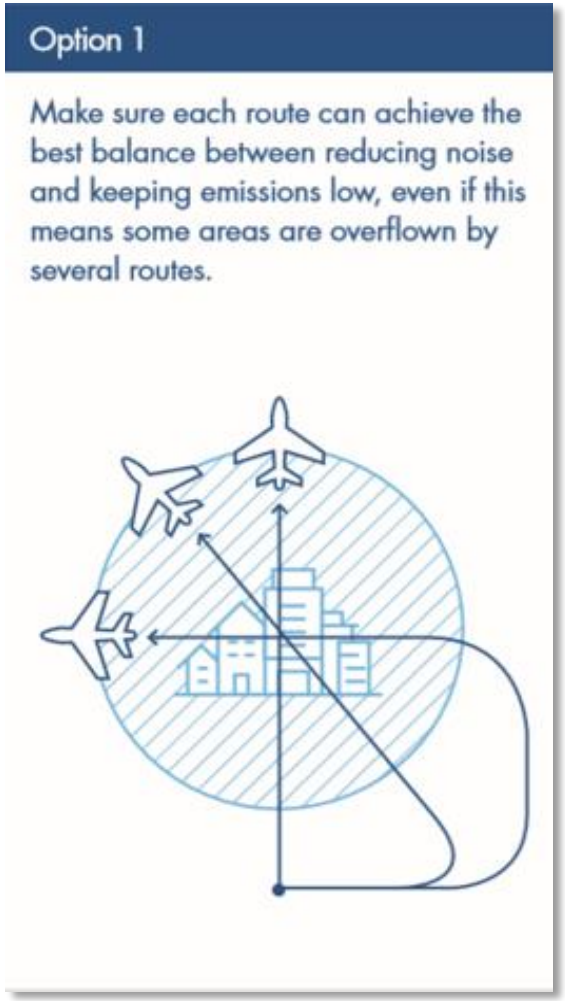
Option 2 *– Avoid having areas overflown by several routes, even if this limits our ability to minimise noise and emissions.*



N.B. figure is based on responses on self-complete forms completed by stakeholders in the groups

Option 1 is the preference for most, as efficiency is key

- **Option 1 could contribute to less pollution overall**
  - Noise and emission reductions are key considerations across groups, so this is the natural choice for many
  - With climate change a hot topic, respondents feel this cannot be ignored
- **But this could heavily impact certain communities**
  - Some groups, esp. Care and Community, worry that some areas will be affected at an unfair level
  - There are concerns that those in areas overflown by several routes may do so at the detriment to their health (e.g. respiratory health impacted by emissions / poor sleep and stress bought about by excess noise)
- **There are ways to strike a balance while supporting efficiency**
  - Option 1, but with sensible caps on how many routes can overfly one area, would support efficiency whilst offering a fairer solution for those most affected



Option 2, although fairer, is seen as an inefficient choice

- **Option 2 is seen as the weaker option by many**
  - Minimising noise and emissions is a priority, and this option does not go far in addressing these
- **Benefit to many communities from option 2 would be negligible**
  - Some argue that those living closest to the airport will be impacted regardless, so this option would not necessarily be effective at reducing the burden
  - It may even result in more people being effected, if routes are spread across different communities to avoid specific areas being overflown
- **Safety is also an important consideration**
  - However, some, esp. those in Aviation groups say there is scope here for mistakes to be made in this scenario
  - There are calls for the simplest, most efficient routes instead, which would be safer

Question 8: potential adaptations

Optimisation / improvements

Again, more information is requested regarding the on-the-ground impact of noise and pollution: they want to know what the % decrease in noise and emissions in Option 1.

Scope for Option 3

Some would like to see a hybrid option – a middle ground where efficiency is promoted, but where there is reassurance that there will be a reasonable cap on routes overflying the areas most affected. In this case, they're looking for a human eye to be cast over generated routes and altered if needed.

Question 9

Areas that we should avoid flying over

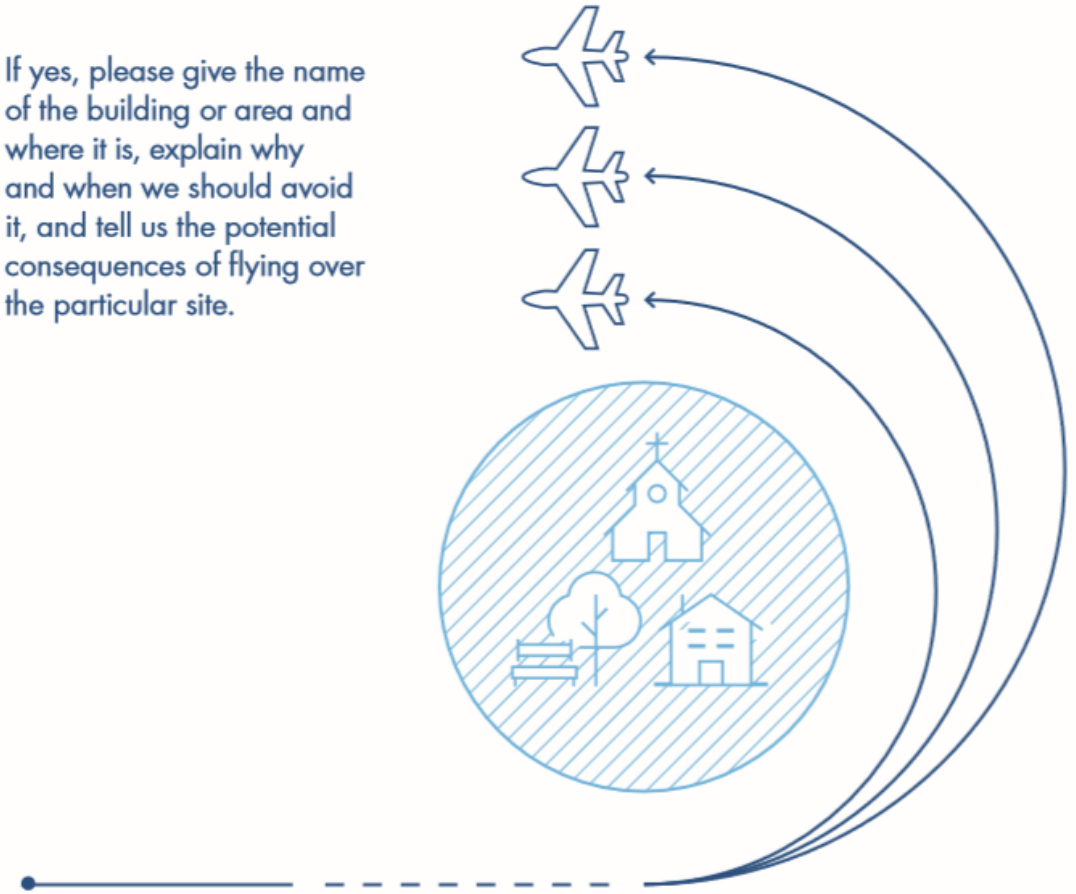
The flight paths we design will control aircraft flying at altitudes of up to 7,000 feet. The areas that might be overflown up to this altitude are shown on the Manchester Airport area diagram.

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

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

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

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



While it is a good idea in theory, avoiding certain areas may be impractical

Protecting peace and quiet: many would like historical attractions, and tranquil areas to be avoided if possible (esp. those in Leisure / Special Interest groups). This would be of benefit to both people visiting the areas, and also to wildlife in the area – overflying could cause major disruption in these areas.

"Noise is going to be more severe in areas that are naturally quiet. If you fly over Knutsford or Tatton Park you'd hear."
Special Interest

Avoiding sites of care and education: where overflying could cause significant impact to vulnerable groups – those requiring care, those in education – there could be consideration of alternative routes to avoid this. Offering grants for soundproofing (tiles / triple glazing) would be a more pragmatic solution.

"End of life care [should be avoided wherever possible]"
Care

Safety considerations: while other areas are 'nice to haves' some areas should be avoided purely on the basis of safety – areas of military activity, areas where there are large numbers of birds etc. Some also argue that event spaces fall into this category, warning of the potential for damage should an aircraft come down.

"Safety – birds, missile sights – they should avoid those"
General Public

The challenge: across groups, there is acknowledgement that this could become a long list, and ultimately it could be unfeasible to avoid all of the categories above. Instead, some suggest measures to minimise impact, such as proper sound proofing, and higher flight paths.

"Hospitals can be sound proofed – any building can be – it depends who is paying"
Community

Question 10

Meeting requirements

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

1. **Safety** – all new flight paths must meet all required safety standards.
2. **Industry standards and regulations** – industry standards (usually set internationally) or regulations apply to some aspects of how aircraft fly. All new flight paths must meet these legal obligations.
3. **Consistent with the national system of aircraft routes** – our new flight paths will become part of a new national network of routes, so they will need to take account of flights to and from other airports. As our flight paths will only be designed to 7,000 feet, they will also need to join up with national aircraft routes at higher altitudes.
4. **Maintaining and improving our airport** – Manchester Airport is a busy international airport which continues to grow to provide the services our customers need. In line with the Government's policy of 'making best use' of our nation's airports, our new flight paths should allow us to provide the services that we offer today and meet any future demand from customers (within the limits set by any planning conditions).
5. **Keeping to government policy** – UK airspace is amongst the busiest in the world. To tackle the issue of congestion, the Government instructed the CAA to develop an Airspace Modernisation Strategy (AMS (CAP1711)), which was published in December 2018. Our design principles must take account of government policy on aviation, and reflect the requirements of the Airspace Modernisation Strategy.

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

If no, please explain why.

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

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

Question 11

Other things we should consider

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

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

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

Across groups, the requirements seem fair – but safety is the clear priority

Ultimately, the considerations are reasonable: across groups there is agreement that these requirements make sense and should be adhered to. In Leisure and Special Interest groups, the environment should also feature in the requirements, as this is a key part of the overall review process.

"They all play a part but some are less important."
Special Interest

Maintaining and improving our airport: this is a key feature for those in the business group, who spot opportunity for economic growth. Those in Elected Rep groups however warn that, while expansion may be beneficial in some ways, it should be within reasonable limits to ensure that communities aren't impacted.

"Expansion with consideration, not expansion at all costs."
Elected Rep

Safety is prime: this is a key consideration in terms of both passengers and the aviation industry – without this, airspace review becomes a futile exercise. For all, this is the main requirement that must be adhered to in the Future Airspace Programme.

"Safety is essential"
Aviation

Final thoughts

Final thoughts (1)

1. While there's positivity around the benefits that Manchester Airport brings to the area, there are some negative associations, with noise / air pollution are spontaneously mentioned across groups.

2. Stakeholders recognise the benefits of the Future Airspace Programme, but question the rationale behind it. Many struggle to align increased capacity with current emissions targets.

3. Across stakeholder groups, reducing noise / emissions is the greatest focus for the design questions. This is unsurprising given their spontaneous comments re: noise / air pollution and MAN.

4. While many look for solutions to design questions that focus on the greater good (e.g. spreading effects), this can be a challenge due to an inherent sense of NIMBY-ism.

Final thoughts (2)

5 Across groups, it's Q1 (avoid change), Q2 (concentrating / spreading), Q4 (balancing noise / emissions), and Q5 (arrangements) that are the priority areas for MAN to focus on.

6 These questions all tap into stakeholders' calls for reduced noise / emissions, and will result in greater efficiencies in the airspace up to 7,000ft.

7 Increased technology of aircrafts (Q7) is also key for many stakeholders – cutting emissions / increasing efficiencies – and Aviation reps call for GA to be included in designs (Q6).

8 Mandatory requirements (Q10) are seen as a 'given' across groups, though safety is called out as the priority. Some call for environmental factors to be drawn into these mandatory requirements.

Final thoughts (3)

9 Across groups, there are calls for more evidenced claims in the design questions (e.g. X% reduction in emissions, X% reduction in noise) for greater clarity.

10 Several alternative Option 3s are suggested for design questions, so there is scope for further development of the design questions before they're taken into a second round of testing.

Monday 30th September 2019

Manchester Airport: Future Airspace Research

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[redacted] – Research Executive, Qualitative Research

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